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Spraying Oils
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Neptune Lime Sul-
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Neptune White
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Summer Use.
Neptune "Clarifol"
White Oil, for
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Neptune Spray
Spreader.
Berger's Arsenate
of Lead (Paste or
Powder).
Genuine Black Leaf
40.
Sicilian Sublimed
Sulphur.
Australian Powdered
Sulphur.

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all over Australia, or direct from the
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NEPTUNE SPRAYING MATERIALS

NEPTUNE OIL COMPANY LIMITED

Melbourne Sydney Brisbane Adelaide Perth Hobart Launceston



ELEPHANT BRAND SPRAY

Insist Upon It!

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

**For this Season Use Only
"ELEPHANT" Brand**

Apples and Pears will be Scarce

Owing to the ravages of thrip, there will be a short crop of Apples and Pears this season. Every precaution should be taken to guard your crop from CODLIN MOTH by spraying with

"Elephant" Brand Arsenate of Lead - White Oil

PRICE IS COMPETITIVE — QUALITY STANDS ALONE
ONCE USED, ALWAYS USED

Remember :—"ELEPHANT" BRAND Stands for Quality

SUPPORT LOCAL MANUFACTURE

WRITE FOR PRICES AND PAMPHLET

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are the Actual Manufacturers and Distributors of "Elephant" Brand Sprays
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Telephone: J 2008.

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BENDIGO PRESERVING CO.

The manager of the Bendigo Preserving Co. Ltd. (Mr. J. C. Potter), in speaking of the development of the fruit industry in and around Bendigo, said that the whole of the company's fruit requirements had been purchased locally. Last season it had been difficult to obtain sufficient supplies, but those growers who had good crops received remarkably good prices. Between 400 and 500 tons of jam and canning fruits had been purchased by the company, despite the poor season.

Mr. Potter said that the prospects for the coming season were a great deal brighter, and he expected the season for Plums would be a particularly good one. Popular varieties were President, Grand Duke and Angelina. In normal years about 200 tons of Plums were purchased by the factory, mostly from the Strathfieldsay and Lockwood districts.

TASMANIA

Leading Australian Firm of Fresh Fruit Exporters.
Manufacturers IXL Jam and Canned Fruits.
Hop Factors—Largest Cool Stores for Hop Storage in Commonwealth.
All Orchard Supplies available at all times.

Agents for—

Associated Evaporated Apple Manufacturers, Eagle, Star & British Dominions Insurance Co. Ltd., Federal Steam Navigation Co. Ltd., Scottish Shire Line of Steamers, Osake Shosen Kaisha.

Correspondence Invited.

H. JONES & CO. PTY. LTD.

HOBART.

Editorial Chats



THE OTTAWA CONFERENCE.

AUSTRALIAN FRUITGROWERS are to be congratulated on having arranged to be effectively represented at the Imperial Economic Conference at Ottawa. Cabled advices state that Mr. J. B. Mills has been officially recognised, and he is sitting on the Empire Fruit Committee in consultation with delegates from all the other Dominions.

It would appear that the case for the fruit industry, as drafted by a sub-committee of the Australian Apple and Pear Export Council, has had to be dovetailed into the general case, representing all the Dominions. This could only be done by having a well-informed representative on the spot. According to cabled advice, this case is based on preference plus a quota. It should be noted that the quota system applies only to foreign fruit, the British market being absolutely open to all fruit from the British Dominions. This idea of a quota, also that of a duty on foreign fruit, has been under consideration by Dominion and British authorities for some time, and now, apparently, the proposals are being crystallised.

The feature of the present Economic Conference is that capable advisors are in attendance from the various industries, both primary and secondary, in addition to financial experts.

Cabled advice published in the Australian press on July 29 states that "the rapid progress in regard to butter, meat and fruit indicates the incalculable advantage of having experts in the various industries on the spot to facilitate discussions. The experts are intimately acquainted with their subjects and the political leaders are taking a minor part at this stage of the proceedings."

There is a general feeling of satisfaction that the Australian fresh fruit industry is effectively represented at the Ottawa Conference.

It is quite evident from the carefully worded speech of the leader of the British delegation (Mr. Baldwin) that Great Britain, with her highly industrialised system, looks to Australia and the other Dominions for adequate reciprocity. Furthermore, more than half of Britain's trade is with foreign countries. The prospects of the absorption of surplus British population for developing the Dominions is also a factor in the discussions.

Tangible results from the Ottawa Conference are looked for, but should these be not fully forthcoming at this stage, the foundation has been laid for the completion of the negotiations. In any case, there will be a better understanding among the fruit supplying interests in the British Dominions regarding trade within the Empire. Nothing but good can come from the Ottawa Conference.

SELLING FRUIT BY WEIGHT.

NOW that this question has been raised, Apple and Pear growers will do well to press forward with this needed reform in having fruit sold by number instead of by weight.

Already in several of the Australian States Apples, Pears, Quinces, and even Plums are sold by number instead of by weight. Large Apples and Pears are always at a disadvantage because the selling by weight system is unfair either to the fruit retailer or to the purchaser.

COMMERCIAL ENQUIRIES.

The Department of Commerce, Melbourne, has received commercial enquiries as under. No guarantee is given in any way concerning the business standing of the enquirers.

Mr. William I. John, of Alexandra-road, Swansea, England, desires to get in direct touch with Australian shippers of Apples.

Messrs. Jeavons, Tinto and Co. Ltd., of 41 Eastcheap, London, E.C.3, desire to get in touch with the exporters of dried fruits, canned fruits, honey, tallow and oil. They state that they have a wide sales organisation covering not only England, but the whole of Europe.

The Netherland Import Co. Ltd., of Haringvlietstraat, 21, Amsterdam, is anxious to undertake agencies for all kinds of Australian foodstuffs in Holland, and its colonies, and Belgium.

Messrs. Israel (United Fruits) Ltd., of 48 Brushfield-street, Spitalfields, England, are anxious to get in touch with Australian exporters of fresh fruits.

Mr. Leopold Lindstedt, of Sten Sturegatan 23, Gothenburg, Sweden, desires to get in touch with Australian fresh fruit exporters.

Mr. Otto Madsen, of 25 Frederiksberggade, Copenhagen, desires to get in touch with Australian exporters of fresh and dried fruits.

Messrs. A. Guyonnet, Saigon, of French Indo China, desire to get in touch with Australian exporters of fresh fruits.

Messrs. Mohammed Ali and Co., of Dharavi, Bombay, 17, desire to import fresh fruits from Australia to India.

Messrs. Martin and Robertson Ltd., 329 Railway-street, Vancouver, Canada (cable address "Marob"), desire to connect with Australian firms interested in the export of foodstuffs such as canned goods, butter, etc.

THRIPS INVESTIGATION LEAGUE.

Branch Formed in South Australia.

A DETERMINED EFFORT is being made to have the thrips scourge thoroughly investigated. A meeting of fruitgrowers and business people connected with the industry was held at Adelaide on July 22, Mr. H. N. Wicks presiding.

Dr. J. Davidson, Entomologist, Waite Research Institute, stated that thrips bred all the year, though slowly in the winter. Experiments with repellants were being conducted.

The Committee of the South Australian branch of the Thrips Investigation League is as follows:—Messrs. H. N. Wicks, J. B. Randell, A. O. Peterson, D. W. Hannaford, R. V. Pritchard, J. S. Hammet, G. Quinn, M. G. Basey, R. O. Knapstein, H. J. Bishop, W. J. Kimber, and F. B. James.

Spray Spreader: "W.P.C.", Somerville, writes:—Could you tell me what quantity of skimmed milk could be used for 80 gallons of spray, to act as a spreader?

Answer (by A. A. Hammond, Department of Agriculture): I have to inform you that 3 quarts of skimmed milk, plus $\frac{1}{2}$ lb. of fresh lime, are the materials required for the casein lime spreader.

Removing Spray Residue from Apples and Pears

Now Necessary for Local Consumption in U.S.A. as well as Export

Latest Advices from U.S.A.

CONTROL OF THE CODLIN MOTH has become essential in the production of marketable Apples and Pears in practically all deciduous-fruit districts of the United States, and thorough spraying with lead-arsenate has been for many years the accepted control method. Apples and Pears sprayed with lead arsenate bear at harvest time an arsenical residue, and this residue must be removed in the interest of public health.

A bulletin dealing exhaustively with the removing of spray residue from Apples and Pears is just to hand from U.S.A. The authors are H. C. Diehl, Senior Physiologist; J. M. Lutz, Junior Physiologist; and A. L. Ryall, Assistant Pomologist, Division of Horticultural Crops and Diseases, Bureau of Plant Industry, and others in the U.S.A. Department of Agriculture.

A summary of this bulletin is as follows:—

The provisions of the Federal Food and Drugs Act of 1906, as administered by the United States Food and Drug Administration and as accepted by most public-health authorities, do not permit an arsenical residue of more than one one-hundredth grain of arsenic, in the form of arsenic trioxide, per pound of fruit. This limit is commonly called the world tolerance for arsenical residue.

In some districts, particularly in the arid sections for the Pacific Northwest, it has been found desirable to supplement lead arsenate with other spray materials because of the increasing difficulty of controlling the codlin moth and in order to reduce the arsenical residue carried by the fruit without diminishing the effectiveness of pest control.

Commercial fruit cleaning has been carried on in some fruit sections for several years, and the consensus of progressive opinion regarding this practice is that when properly done it improves the appearance of the fruit, often makes sorting and grading easier, does not injure the fruit, and may improve its keeping qualities.

Relation of Spray-Residue Removal to Spraying Practices.

Plans for cleaning spray residues from the fruit should

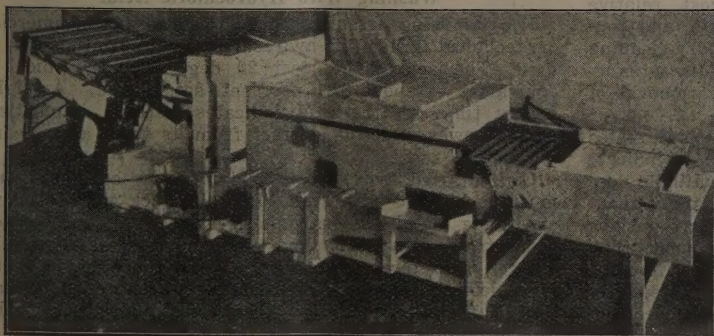
start with the beginning of the spraying programme in the spring. Co-operative action or community effort may thus solve the broad problem, although actual details of fruit cleaning must be carried out by individuals.

It is not possible to determine accurately the cleaning treatment required by the fruit without some preliminary trials and chemical determination of the residual arsenic on the cleaned fruit. A number of important variables may affect the quantity and character of the spray residue on the fruit at harvest time. Among them are varietal differences; concentration of the lead arsenate used; the spray materials used in combination with lead arsenate; the methods and dates of spray applications; and the weather conditions, particularly rainfall, during the growing season. The time of application of the last spray is important, especially if combination lead-arsenate-oil sprays are used.

In the Pacific Northwest the important Apple varieties, when cleaned immediately after harvest, range themselves in about the following order of decreasing difficulty of cleaning, either by washing or by dry cleaning: Esopus Spitzenburg, Arkansas Black, Winesap, King David, Delicious, Stayman Winesap, Jonathan, Yellow Newtown, Rome Beauty and Winter Banana.

In the more arid fruit-growing sections, such as the Pacific Northwest, Apples or Pears sprayed more than three times with lead arsenate in concentrations of not over 2½ pounds to 100 gallons of water usually will require a washing treatment in order to reduce consistently the quantity of arsenic in the spray residue below the world tolerance for arsenic. The larger the number of applications and the later in the season these applications are made, the greater will be the quantity of spray residue on the fruit at harvest time.

Fruit carrying the heaviest residue should be selected as the sample for analysis so that the grower may know the worst about his crop. Different varieties, as well as lots that have received different spray applications, should be analysed separately.



A type of commercial washing machine used in U.S.A.

It should be emphasised that omitting late sprays or applying reduced amounts of spray material in an attempt to avoid the necessity of fruit washing may result in heavy losses from wormy fruit, especially in sections where late-brood infestation is severe.

The use of spreaders with lead-arsenate spray has not made the residue easier to remove by washing, unless the spreaders contain hydrated lime, nor has it materially reduced blotching on the fruit.

The use of hydrated lime or Bordeaux mixture with lead-arsenate sprays generally facilitates the removal of spray residues when hydrochloric acid is the solvent used in washing. The addition of 1 or 2 pounds of hydrated lime to each 100 gallons of spray in the last two applications will facilitate residue removal and may reduce the arsenical calyx injury that often occurs in some districts because of the formation of water-soluble arsenic. Heavy lime sprays used late in the season in some districts to lessen psylla damage are easily removed with a dilute hydrochloric-acid wash. Solvents other than acid do not effectively remove residues of lime or Bordeaux mixture in combination sprays.

Removing lime-sulphur from fruit has been found difficult. Fortunately, the climatic conditions favoring development of the scab disease for which lime-sulphur is generally used are not especially conducive to the development of the codlin moth. The arsenical residues, therefore, are usually not especially heavy in regions where lime-sulphur is used as a summer fungicide, and washing is not often required. Lime-sulphur residue is more effectively removed by dry cleaning (wiping or brushing) than by washing, unless brushes or wipers are used in the washing.

Relation of Maturity to Fruit Cleaning.

The maturity of the fruit has a marked influence on the facility with which it can be cleaned by any method. All varieties of Apples are more easily cleaned at harvest time than after storage. The development of waxy or oily materials on the surface of the fruit, which makes satisfactory cleaning difficult, apparently takes place throughout the growing season, but becomes very noticeable after harvest.

Fruit should be cleaned while it is still hard or firm. In order to accomplish this the following practices should be followed: (1) Harvesting at the proper stage of maturity; (2) co-ordinating the picking and packing operations so that the fruit will be cleaned and packed as soon as possible after it is harvested; (3) holding the fruit in the coolest space available, preferably in cold storage, if cleaning and packing are unavoidably delayed.

Cleaning Fruit by Wiping or Brushing.

The first commercial efforts to remove spray residue from Apples and Pears were made with dry-cleaning methods, such as brushing or wiping with cloths. Experience has shown, however, that when cost, relative cleaning efficiency, safe handling of the fruit, and tonnage capacity are considered, the best dry-cleaning methods are invariably less economical and less satisfactory than suitable washing methods for the removal of spray residue.

Lack of efficiency in dry-cleaning methods is revealed by the results of hundreds of analyses, which indicate that brushing or wiping, under the best conditions, does not consistently remove from Apples more than about 30 per cent. of the original quantity of spray residue when the residue on uncleaned fruit is not more than 0.04 grain of arsenic trioxide per pound. With heavier original deposits the proportionate amount removed may be greater, but the absolute amount left is often considerably above the world tolerance.

More than half of the arsenical load on Apples generally is carried in the calyx and stem ends. Dry cleaning cannot effectively remove this residue, which is included in the analysis. Brushing or wiping may, in some cases, actually rub the residue into the waxy coating of the fruit and add more residue to some of the fruits than they bore originally, especially if the cleaning equipment itself is not kept properly clean.

Cleaning Fruit by Solvent Methods.

Several years' experience has shown that arsenical residue can be removed from Apples and Pears most effectively, cheaply, and safely by the use of some chemical solvent for the lead arsenate. Hydrochloric acid (commonly termed "muriatic acid") has been found the most satisfactory of all the solvents tested.

Alkaline washes have also been used and are quite effective, but because of the solvent action of some of the alkaline materials on the waxy coating of the fruit their use is often not entirely free from danger of wilting or injury to the fruit. Alkaline washes are generally not very effective in removing residue of sprays containing lime, and an acid wash is to be preferred.

The ultimate choice of a machine for washing fruit will generally be influenced by the initial cost of the equipment, the cost of operation per unit of fruit, the suitability of the equipment to local conditions, its adaptability to the space available, and particularly to the general mechanical and cleaning efficiency of the machine, as well as the absence of possibility for damage to the fruit.

To prevent the contaminated acid solution from penetrating into the core of the fruit and thereby bringing about decay, machines that use either the direct jet spray or submerged the fruit 4 to 6 inches or more below the surface of the washing solution should be avoided, particularly for Apple varieties that frequently have open calyx tubes. These include Jonathan, Esopus Spitzenburg, Stayman Winesap, Ortley, White Pearmain, and sometimes Delicious. Such types of machines are no longer manufactured commercially and should not be constructed by the grower. Immersing the fruit in the cleaning solution while in boxes is open to the same objection as other submersion methods.

A certain amount of agitation is essential in obtaining the greatest efficiency of the dipping method.

The strength of the solvent solution should be tested often, the frequency depending upon the conditions prevailing during the treatment. Testing the concentration of the acid washing solution every hour has been found necessary in some cases where such materials as lime or Bordeaux mixture are being removed, because of the chemical neutralisation of the acid by these materials.

Washing With Hydrochloric Acid.

For removing arsenical spray residues the commercial or technical grade of hydrochloric or muriatic acid is used. The acid should test 20 deg. Beaume, which is equivalent to about 32.1 per cent. actual acid. A slight yellow tinge in the acid indicates certain impurities, which, however, do not detract from its value as a cleaning agent.

Concentrated hydrochloric acid is very corrosive and must be handled with care. It will attack cloth, leather, and some metals unless quickly washed off with water or neutralised by soda, lime, or some other alkaline substance. Therefore, where acid is used for washing fruit, it is desirable to keep on hand a quantity of hydrated lime, carbonate of lime, or common baking soda to be used in case of accident.

Proper washing of Apples and Pears generally requires a solution of at least 1 gallon of commercial hydrochloric acid to 100 gallons of water. For average lots of fruit with no particular spray-material complications, 2 to 3 gallons of commercial acid to 100 of water usually are enough. Use of solutions of more than 4 gallons of acid to the hundred is not recommended, because the increase in cleaning efficiency is generally not proportionate to the additional quantity of acid used, and it may considerably increase the cost of washing. The use of such high acid concentrations also places a relatively greater burden on the rinsing section of the washing equipment, and this burden is ordinarily not provided for in the construction of the machines.

The acid solution and the rinse tanks should be emptied at least once a day, or after about 1,000 bushels of fruit has been cleaned, and an abundance of fresh water should be used to clean them; if necessary they should be scrubbed on the inside.

When the acid-solution tanks are emptied the waste acid should be drained away from stonewark, concrete, brick, or iron pipes, which it will attack and corrode in dilute solution. The used solution should be kept out of irrigation ditches and away from trees and other useful plants.

Warming the Washing Solution.

Raising the temperature of the acid solution gives increased cleaning efficiency in washing Apples from which the residue can not otherwise be satisfactorily removed. The temperature of the solution for this purpose should be at least 80 deg. to 85 deg. F., preferably 90 deg. to 100 deg. for consistently good cleaning.

Rinsing the Fruit.

Proper rinsing of the fruit is a very important part of the washing process and can do much toward eliminating the danger of injury from soluble arsenic, acid burning, and decay.

Drying the Fruit.

If sound fruit is used and if the washing and rinsing operations are carefully done, drying the fruit is not essential to protect its keeping quality, although it may be desirable in order to facilitate packing if fruit is to be wrapped and packed in boxes. In any event, traces of moisture do not impair the keeping quality of the fruit, and the moisture usually disappears entirely while the fruit stands in storage, especially if it is wrapped.

(To be continued)

SHEPPARTON CANNERY.

Cool Stores to be Doubled: Factory Extensions.

On behalf of the directors of the Shepparton Preserving Co. Ltd., the chairman, Mr. A. W. Fairley, has announced that a new cool store with a capacity of 30,000 cases, will be built, together with a grading and packing room and receiving platform. The present cool store is to be enlarged to provide an additional 10,000 case storage capacity, making the total capacity of this store 50,000 cases.

A new line of machinery installed and accommodation extended for 50 more girls in the pitting department, the whole work to be completed before the commencement of next fruit season.

The cost of these factory extensions will be £25,000.

TASMANIA.

Statutory Powers Sought by Advisory Board.

Request Rejected by Government.

FOR SOME TIME past the Tasmanian State Fruit Advisory Board has sought statutory powers and the right to collect its funds by means of a levy. A deputation from the Board waited on the Minister for Agriculture (Hon. A. L. Wardlaw) on July 15, and stated their case. The deputation consisted of Mr. B. J. Pearsall, Hon. W. H. Calvert, M.L.C., Messrs. F. Harrison and Merton Calvert.

The Minister, in reply, said many growers were not in favor of the Bill. The Government was opposed to control of industry by statutory authority, and considered (1) growers should be permitted to market their produce through any channels they desired; (2) the Bill as drafted meant giving the growers a blank cheque; (3) the Tasmanian Parliament could not instruct the Commonwealth Government to collect levies on behalf of the Board: any levies collected by the Commonwealth would have to apply to all States; (4) the Board could not undertake the work of arranging shipping space, and the financing of guarantees was apparently beyond the Board's financial resources.

The Minister congratulated the Board on the fine work accomplished. Finance might be arranged through the Agricultural Bureau.

APHIS ON FRUIT TREES.

Reminder Regarding Spraying.

ORCHARDISTS MAY BE REMINDED of the wisdom of keeping a lookout for signs of aphis and taking prompt measures for control. For the green Peach aphid two methods of attack are recommended by the Entomologist of the N.S.W. Department of Agriculture —(1) application of an ovicide (egg-destroying) spray in the form of 3 per cent. tar distillate while the trees are dormant, and (2) (if the infestation renders it necessary) of a contact insecticide in the form of nicotine sulphate and soap when such eggs as have escaped the effect of the ovicide spray have hatched. On no account should tar distillate be applied when the buds are commencing to swell. Nicotine sulphate and soap has no effect on the eggs and should be applied after they hatch, but before the buds burst (that is, during the two or three weeks preceding bud bursting). The formula recommended is 1 pint of nicotine sulphate to 75 gallons of water, plus 3 lb. soap.

Even where tar distillate has not been used, this formula, when applied as directed, will give satisfactory control, although the period over which it can be employed is limited.

The above measures will also be found effective against the Black Cherry aphid, but tar distillate spray is ineffective in the case of the black Peach aphid, as it does not lay its eggs upon the tree. For control of the black Peach aphid the nicotine sulphate and soap spray only should be used.

THE PORT OF LIVERPOOL.

The Eighth Edition of the publication entitled "The Port of Liverpool" (a copy of which is just to hand), is most comprehensive and well illustrated. This publication contains descriptions, illustrations and plans of the docks, etc., at this port.

PICKING CITRUS FRUITS.

Gloves Should be Worn and Fruit Handled Gently.

Injury Leads to Decay.

THOUGH CITRUS FRUITS do not show injury from bruises for some time after picking, in reality the oil cells of the skin are very easily damaged, and it is through such injuries to the skin that decay germs, such as those causing blue mould, make their entrance. Hence great care is necessary when picking and packing for market.

Gloves should be worn or the finger-nails kept extremely short, and the fruit should be picked or clipped with the button adhering but no length of stalk that will come into contact with and puncture other fruit.

The fruit should be placed right into the picking receptacle, and not dropped in from the top, and the same care should be exercised in all subsequent handling between picking and packing.

Though paper lining, by checking the circulation of air in the case, may tend to produce conditions favorable for the development of blue mould, the rough timber of the unlined cases injures the skin and allows infection by the disease, so that lining-paper is an advantage when packing citrus fruits.

BRAZIL'S FRUIT EXPORTS.

According to the Department of Overseas Trade, London, exports of fruit from Brazil increased from 118,000 tons in 1929, to almost 140,000 tons in 1930, whilst up to the end of August, 1931, a further increase of 35 per cent. has taken place.

The chief factor in the increase has been the considerable development which has occurred in recent years in Orange cultivation.

In 1928 the total exports of Oranges were approximately 140,000 cases, and in 1931 they reached a total of 1,133,000 cases.

VICTORIAN CITRUS INDUSTRY.

Field Day at Tongala.

A SUCCESSFUL FIELD DAY was held at some of the leading citrus groves in the Tongala district (Victoria) early in July, and was followed by a dinner at which Messrs. J. M. Ward (Superintendent of Horticulture), A. A. Hammond (Acting Chief Orchard Supervisor), and other officers of the Victorian Dept. of Agriculture also Mr. J. A. Parkes (General Manager of the V.C.C.A.), were entertained.

An address was given by Mr. Ward on "Citrus Culture and Bud Selection." He stated that one of the most serious features of the Victorian citrus industry was the prevalence of "off-type" trees which produced "off-type" fruit, of low market value.

In order to overcome this trouble a careful selection should be made of buds for new growth from the right type of tree. Victoria grew some of the finest Washington Navel Oranges in the world, and it was the aim of the Department to obtain as many buds as possible from these "true-to-type" trees. These buds would be made available to Victorian citrus growers as soon as possible. The Victorian Department had a scientifically-trained officer devoting the whole of his attention to the selection of buds from desirable trees. He advised growers to make a liberal use of green manure crops, which had an added advantage of absorbing surplus moisture in

wet seasons. Growers should carefully guard against brown rot in wet seasons.

An address by Mr. J. A. Parkes on the condition of the citrus market was appreciated. Growers were realising that some system of organised marketing was necessary. In 1930 75,000 cases of citrus fruits were sent to New Zealand, and in 1931 the quantity had been increased to over 100,000 cases.

CITRUS FRUIT CONTAINERS.

CITRUS GROWERS are limited to certain cases in which to market their fruit. The Minister for Agriculture (Mr. Allan), states that it has been noted that growers in some citrus districts have been forwarding citrus fruits in various types of packages, such as beer boxes, tea chests, and bags, to country railway stations, where receivers tip the fruit, mixed in all sizes into secondhand cases, and hawk it around the country for sale. Continuing, the Minister states that growers who forwarded and persons who sold the fruit in that way committed an offence. The Fruit and Vegetable Act and regulations provide that citrus fruits must be graded into sizes and packed and sold only in case of the following inside dimensions:—Export citrus cases, 24in. long, 11½in. wide, and 11½in. deep; or dump bushel case, 18in. long, 8 2-3in. wide, and 14½in. deep; or Canadian (standard) case, 18in. long, 11½in. wide, and 10½in. deep; or one-half bushel dump case, 18in. long, 8 2-3in. wide, and 7½in. deep. The department intended to proceed against offenders.

ORANGES IN BAGS.

There has been some controversy in Mildura lately on the question of containers used for the conveyance of fruit on the railways. The Railways Department state that, provided the grower signs the consignment notice, they have no regulation to prevent Oranges being sent in bags to charitable institutions or as gifts to friends.

The regulation governing the containers does not concern the Railways Department, but is controlled by the Department of Agriculture and the Department of Markets.

RED CLIFFS PACKING HOUSE EXTENSIONS.

The Red Cliffs Co-operative Packing Company has constructed two dehydrators this season at a cost of several hundred pounds, and now has a permanent plant for dealing with rain-damaged fruit.

As there was no room for the installation of these machines in the big packing shed, an extension is being constructed at the southern end of the premises. The size of the new structure is 95ft. x 45ft.

To Preserve Oranges.

Oranges can be preserved whole and make a very handsome product in glass jars for purely spectacular display, but their flavor is quite insipid. Cut fruit gives a far better flavored article. The ripe Oranges are cut into "V" shaped sections, with a width of about ¾ inch at the rind. After packing the cut fruit in jars, fill with cool strained syrup made with 5 to 6 lb. sugar to 1 gallon water. Place the jars in a cold bath, which is brought to the boil and kept boiling for five minutes. Then remove the jars. An alternative method is to cook for thirty-five minutes at a temperature of 190 deg. Fah.

Oranges so preserved can be used in salad, or if served with cream they make a very palatable sweet.

Passion Fruit.

By WILLIS J. WILLIAMS, F.C.S., Superintendent of Markets, Sydney.

A SERIES of experiments have been completed at the cold storage works of the Municipal Council of Sydney in connection with passion fruit. The investigations included the storage of pulp, juice and fresh fruit in varying conditions.

Samples of pulp and juice have been held at temperatures of 36 deg. Fah. and 10 deg. Fah., and were examined from time to time so that the flavour could be tasted and any decomposition could be noted.

A note was taken of the point at which passion fruit juice freezes, and it has been proved to be 28.4 deg. Fah. There was also an expansion in volume in freezing of 5.3 per cent.

The condition of the fruit placed in store was selected and was of a typical average high quality standard. The pulp was also of the same standard, flavour, sweetness, acidity and well blended. This fruit was approaching full ripeness, and the colour of the skin was straw with reddish tinges shown thereon. These same remarks would apply very largely to the juice of the fruit with, of course, exception as to colour.

The juice and pulp that was placed in a temperature of 36 deg. was examined at the end of four weeks; the flavour, aroma and the appearance was just the same as when the fruit was placed in store, and the condition was exceedingly good. The original colour was also retained. At the same time the pulp and juice that was stored at 10 deg. was allowed to thaw out in the air temperature, and it was found that the original colour was retained, the taste was not altered, the aroma was quite characteristic, and no apparent deterioration could be noted.

At the end of eight weeks a further examination was made of the pulp and juice, and the condition was still good, the aroma was even a little better, and there were no signs of fermentation or deterioration, but in the juice there was a deposit of a yellowish nature, but on shaking it was found that the deposit was taken up and the juice could be said to be quite satisfactory.

A further examination of the pulp and juice that was stored at 36 deg., was made at the end of twelve weeks. The juice had somewhat departed from the original flavour, being slightly more acid, but both the pulp and juice were in a saleable condition. The appearance was good, the condition quite satisfactory. A slight deterioration was noticed in the flavour and aroma. There is not the slightest doubt that both pulp and juice would readily sell after this length of storage.

The pulp and juice stored at 10 deg. after twelve weeks was in an excellent condition, and there was no apparent alteration at all. The colour was normal, flavour and aroma excellent, no deterioration that could be noted, but there still appeared in the juice a reddish-yellow sediment which settled in the bottom of the bottle. The juice, however, appeared to be quite normal. The pulp and juice were kept in the ordinary atmosphere for a week, and although the temperatures in May are certainly colder, and the humidity less than in the summer months, it can be said, without doubt, that both pulp and

Cold Storage Tests in Sydney with Pulp, Juice, and Whole Fruit.

juice would keep for a few days under atmospheric conditions after being in store for a period of twelve weeks.

It is interesting to note here that juice and pulp have been stored in the Municipal Cold Storage Works, Sydney, for a period of two years and three months, and that at the end of this period it was noted that there was no deterioration. Passion fruit juice and pulp stored under these conditions can be kept, in a satisfactory manner, for what can be said to be an indefinite period.

An experiment was carried on, at the same time, with passion fruit (whole). The fruit was not wrapped, but placed in ordinary fruit cases and stored in an ordinary room at a temperature of 36 deg. Further to this, some of the fruit was packed in ground peat moss and held at the same temperature.

Tests were made, from time to time, which showed that there was a regular deterioration going on, and that there was a mould growth on the fruit that was not wrapped in the ground peat moss. The skins appeared to become thinner the longer they were in store, and at the end of six weeks the fruit had distinctly deteriorated. As a matter of fact the fruit packed in the ground peat moss was slightly superior to that which was not wrapped.

To summarise the experiment of the whole fruit, it can be said that after two weeks the experiment proved that at a temperature of 36 deg., passion fruit will not keep in a satisfactory manner, and that this would prove that it would not be advisable to ship whole fruit overseas at a temperature of 36 deg.

It is intended to carry on further investigations at lower temperatures to ascertain whether it would be possible to keep passion fruit over two weeks, which would enable the fruit to be sent to overseas markets, such as England and America.

To summarise the other tests made it can be definitely stated that the pulp and juice of the fruit at an average temperature of 36 deg. can be held as long as three months, provided that care is exercised in choosing the fruit, which must be of the very best quality, so that the pulp and juice will be in the best condition to store. No inferior fruit, at any time, should be placed in cold storage and when pulp and juice are required only fruit of the highest quality should be used.

If this method of chilling pulp and juice is used, it is essential that these products should be used immediately, otherwise fermentation and deterioration would rapidly take place.

When storing pulp and juice at an average of 10 deg., experiments would indicate that this can be done quite satisfactorily, and the juice exported overseas, and that no time limit can be set down, and it appears in this temperature that juice and pulp would keep indefinitely, but it must be remembered that care must be taken to allow for an increase in volume of 5 to 6 per cent. in the containers when passion fruit juice and pulp is to be frozen for the expansion in volume. At 10 deg. pulp and juice can be exported with safety to England and America.—Reprinted from the "Australian Food Journal."

APPLE EXPORT CASES.

Standardisation Proposals.

The Standards Association of Australia has been asked to carry out work on the standardisation of export fruit cases, and has referred the matter to a special Committee, of which I. H. Boas, Chief of the Division of Forest Products, Council for Scientific and Industrial Research, is Chairman.

The Committee decided to restrict its work in the first instance to Apple cases. Evidence is abundant that the use of a number of different types of case causes serious inconvenience in shipping, and consequently adds to the cost. Furthermore, there is a great conflict of opinion as to the relative merits of the local hardwood dump case and the imported softwood standard case in their ability to carry fruit to London in the best possible condition.

The Committee was faced with this conflict based upon more or less general observations, and asked the Division of Forest Products to carry out a series of experiments to definitely establish the facts.

This work was begun in May of this year by Mr. W. M. Carne, Senior Plant Pathologist of the Division of Plant Industry, and Mr. R. F. Turnbull, Utilisation Officer of the Division of Forest Products.

It was found advisable to restrict the work in the present season to the development of a suitable technique. The main idea was to develop tests which would yield results translatable into actual practice. After two months' work, involving the careful packing, testing and re-examination of over 70 cases of Apples, a good basis has now been laid for a far more extensive series of tests in the next season. The extent of the work involved can be seen from the fact that this year the detailed examination of over 7,000 Apples was carried out. The details of all bruising were recorded and analysed. Some very important facts were indicated, but it will not be reported until further work on a larger scale confirms them. It is expected that established facts will then replace the present opinions and definite steps on standardisation will follow.

The Special Committee met on Friday, July 8, to consider the report, and expressed its great satisfaction at the value of the work done. It further passed a resolution thanking the C.S.I.R. for the valuable work it was carrying on for the fruit industry, and expressing the opinion that such work was of the utmost importance and essential to the development of a sound export trade.

APPLES SENT TO BRITISH PRIME MINISTER.

Advice has been received that the case of Apples which was sent by the Summit Fruitgrowers' Co-op. Assn. Ltd. in February last for presentation to the Prime Minister of Britain (Mr. Ramsay MacDonald), arrived in excellent condition. The Prime Minister expressed warm appreciation to the Summit Fruitgrowers' Association. The case was forwarded with a consignment of 1,000 cases of Apples shipped by the Association to the London market.

Cultivate a sense of value in the use of words. Let your speech meet and correspond with the facts—reflect before you speak.

The true way to be deceived is to think oneself more knowing than others.

PERSONAL.

Miss Steele, M.Sc., who is working under a research scholarship from the Melbourne University, is intensively studying thrips, particularly the life history of the pest. Miss Steele is studying thrips on the Mornington Peninsula. She is in touch with other research workers.

Congratulations to Mr. L. Pepperell, who has been elected President to the Southern Victoria Fruitgrowers' Association for the third successive term.

Mr. Pepperell has served the Association well; he is a capable chairman, understanding thoroughly the rules of debate, and has the requisite patience and bon homie for conducting meetings.

The Association is to be congratulated on retaining Mr. Pepperell's services as President.

Mr. R. Gordon, managing director of Messrs. J. H. Young Pty. Ltd., wholesale fruit merchants, of Melbourne, has been absent from the Wholesale Fruit Market for a short period, owing to illness.

OBITUARY.

The death occurred on July 20 of Mr. W. Cattnach, Chairman of the State Rivers and Water Supply Commission. A service was held at Scots' Church on July 22, after which the cortege left for the Melbourne General Cemetery.

Instructions were given for the cessation of all activities for two minutes, commencing at 11 o'clock, on the day of the funeral, at the Hume Reservoir, the Eildon Weir, Eppalock Weir and other works of the Commission.

Prior to his connection with the Water Commission the late Mr. Cattnach was Town Clerk of Flemington and Kensington and of Essendon. As Chairman of the State Rivers and Water Supply Commission Mr Cattnach rendered service of great value. He was esteemed by all who knew him.

In the passing of Mr. Cattnach the State has lost a valued servant. Sincere sympathy is expressed to the widow and relatives.

The death occurred at Somerville on July 22, of Percy Gordon Unthank, aged 47 years. The late Mr. Unthank took ill on Wednesday, 20th, and died at the Somerville Hospital on the morning of Friday, 22nd.

The deceased leaves a widow and one son, Eric.

The death occurred of Mr. Ralph Valentine, senior member of the firm of R. Valentine & Sons, of Bathurst-street Fruit Markets, Sydney, on July 12, at Northcote-avenue, Haberfield, N.S.W. The late Mr. Valentine was in his 68th year, and is survived by two sons and two daughter. The funeral took place at the Randwick Cemetery.

FRUITERER KILLED.

Mr. Walter Hall, wholesale fruiterer of Martin-street, Garden Vale, Vic., was accidentally killed at midnight on July 15, when his truck overturned after running into a milk can which was in the middle of the road. Hall was accompanied by Geoffrey Carter, aged 17 years, who escaped uninjured. Deceased, who was 33 years of age, leaves a wife and one child.

Orchardists' Field Days.

Success in Victoria.

FIELD DAY AT HARCOURT.

The second Annual Field Day organised by the Victorian Fruit Marketing Association and the Harcourt Cool Stores' Association, was held at Harcourt on June 28.

Demonstrations were held at Mr. H. McLean's orchard. Mr. J. M. Ely, chairman of the Local Committee, welcomed the visitors. Pruning demonstrations were given by Messrs. J. W. Bailey, J. H. Lang, H. Leversha, W. Leversha and C. A. Bertuch.

Over 200 growers of local and surrounding districts were present. The event was highly enjoyed. Lectures were given as follows:—Mr. A. A. Hammond, Department of Agriculture, "Spraying"; G. W. Brown, Merricks North, "Manuring"; F. Read, M.Agr.Sc., Department of Agriculture, "Soils and Manuring."

At the evening session it was decided to write to the Department of Agriculture requesting the services of Mr. A. A. Hammond, who is due to retire shortly to be retained for a further period.

At the meeting a proposal was put forward in favor of a district co-operative scheme to raise funds to have Mr. Hammond available as a salaried district consultant.

Thos. Fuller, E. Cook (Pakenham), Mr. H. Leversha (Harcourt), and Mr. Martin (Garfield North).

A hearty vote of thanks was conveyed to Mr. Ahern for placing his orchard at the disposal of the Committee for purposes of demonstration.

FIELD DAY AT SOMERVILLE.

A successful field day was held at Somerville on July 28 under the auspices of the Victorian Fruit Marketing Association. Over 150 growers attended at the Binnak Orchard, of which Mr. G. Tyler is the manager.

Demonstrations of pruning were given by Messrs. J. W. Bailey (Narre Warren), E. Walpole (Tasmania), W. P. Hutchinson, P. V. Kerr and J. Unthank.

Addresses were given as follows:—Control of Orchard Pests (Mr. A. A. Hammond, Acting Chief Orchard Supervisor), Manuring as Applied to Fruit Growing (Mr. G. W. Brown, Merricks North). In the evening Mr. A. G. Strickland, M.Agr.Sc., gave an illustrated lantern address at the Tyabb Hall on the subject of Cross Fertilisation of Fruit Blossoms.



FIELD DAY AT HARCOURT.

Mr. W. Leversha and Mr. C. Bertuch pruning Munro's Favorite trees.

—(Illustration by courtesy "Weekly Times.")

PAKENHAM FIELD DAY.

There was a large attendance at the Field Day at Mr. J. Ahern's orchard, Pakenham, on July 21, which was arranged by the Victorian Fruit Marketing Association.

Appreciated addresses on manuring were given by Mr. F. M. Read, M.Ag.Sc., Department of Agriculture (who emphasised the value of green manuring and dealt with the value of drainage and general orchard work), also by Mr. Geoff. Brown, of Merricks North (who spoke on manuring of orchards and of using profitable manures).

Pruning demonstrations were given by Mr. J. W. Bailey (Narre Warren), Messrs. Arthur Board, Samuel Brown,

SOUTHERN VICTORIA FRUITGROWERS' ASSOCIATION.

At the annual meeting of the Southern Victoria Fruitgrowers' Association, Mr. L. Pepperell presiding, it was decided—(1) that the Victoria Market Advisory Committee—Messrs. Aspinall (fruitgrowers), George (market gardeners), and Thompson (retail fruiterers)—be requested to confer with the Market Superintendent, Mr. Minns, regarding extra accommodation at the Victoria Market; (2) that the City Council be asked to take the Advisory Committee more into their confidence in regard to Victoria Market matters.

Mr. J. M. Ward, Superintendent of Horticulture, gave an interesting address on the subject of fruit export. Mr. A. E. Hocking spoke favorably of the activities of the Victorian Fruit Council and the Orchardists and Cool Stores Association.

Marketing Bill Opposed.

It was decided, on the motion of Messrs. W. A. Thiele and Leber, to vigorously oppose the proposed Primary Products Marketing Bill.

FRUIT PACKING INSTRUCTION.

VICTORIAN GROWERS have expressed keen appreciation of the work of the Department of Agriculture in conducting fruit packing classes. This work is under the direction of Mr. Basil Krone, Fruit Packing Expert, and his assistant, Mr. Harris.

Mr. Krone's itinerary until September is as follows:—Mondays, Tuesdays, and Wednesdays.—Instruction, and inspection of packing at various citrus packing houses in the State (all packing sheds will be visited). Various fruit packing experiments.

Thursdays.—Apple packing classes at Hastings. Fridays, at Somerville.

Children's Apple Packing Classes.

Mr. Harris's itinerary until September is as follows:—

Mondays.—Classes at Harcourt and Harcourt North.

Tuesdays.—Classes at South Ravenswood.

Wednesdays.—Classes at Pakenham East.

Thursdays.—Classes at Pakenham Upper.

Fridays.—Classes at Bunyip.

Saturdays.—Office duties.

Interstate Fruit Packing Conference.

To bring about uniformity in grading and packing throughout the Commonwealth, an interstate conference of fruit packers will be held in Victoria some time during August. Both Mr. Krone and Mr. Harris will attend this conference, which will last a few days, and the foregoing itineraries being suitably amended.

VICTORIAN FRUIT MARKETING ASSOCIATION.

THE monthly meeting of the executive of the Victorian Fruit Marketing Association was held at Melbourne on July 29. Mr. J. W. Bailey presided. There were also present:—Messrs. Carne, Ford, Parnham, Brown, Cave, Eagle, Mellor, Jost, Hutchinson, Harrison, Webb, Lawford; Ward and Meeking (Department of Agriculture), and the Secretary. Other Association members included Messrs. S. Scott (Melbourne), G. Douglas, J. M. Ely, and H. Clark (Harcourt).

The resignation of Mr. Colombie as a member of the executive was accepted with regret. A resolution of appreciation of his services was carried.

Mr. R. F. Turnbull gave details concerning the investigations of the Standards Association and the Council for Scientific and Industrial Research re the standardisation of Apple cases. If local hardwoods were used same should be seasoned.

Mr. J. M. Ward gave an interesting review of the 1932 export season. Decided to ask the O.S.R.A. to provide the improved method for loading fruit into ships as adopted in South Australia. Messrs. Webb and Scott were appointed to attend the meeting of the Victorian Fruit Council on August 9.

Favorable reports were received concerning successful field days at Harcourt, Pakenham and Somerville.

It was decided to support the proposals for having

Apples, Pears and Quinces sold by number instead of by weight.

Further efforts are being made to prevent sales tax being payable on fruit wrapping paper, nails, cases, etc. A letter was received from the Department of Commerce re market for Apples in Canada.

FRUIT INDUSTRY SUGAR CONCESSION.

Fruitgrowers Must Receive Minimum Prices or Sugar Concession not Available to Factories.

Recently instances were brought under the notice of the Fruit Industry Sugar Concession Committee, where growers in South Australia had not been paid by certain processors the minimum prices prescribed last season for some varieties of fresh fruits for either canning or jam making.

A thorough investigation was instituted by the Committee and, as a result, the processors concerned have been called on to pay growers the difference between the prices actually paid and the minimum prescribed prices which they should have received.

The Committee regards very seriously any evasion, innocent or otherwise, on the part of processors of the conditions under which the domestic sugar rebate is granted, particularly as when claiming this rebate manufacturers make a statutory declaration that at least the minimum prices prescribed by the Committee have been paid.

The opportunity is taken of warning processors in all States that severe action will in future be taken in any case where the conditions governing the granting of the domestic rebate are not observed.

* * * * *

There has been considerable dissatisfaction in South Australia regarding the arrangements for the canning of Pears and some other fruits last season. For Pears the price was fixed for £10 per ton, that is if the canners were to secure the benefit of the sugar concession.

In the flush of the season the markets became glutted with Pears which the canners purchased, and, in spite of earlier pessimistic statements, the canned Pear pack was quite substantial. Whereas the price of £10 per ton was fixed, growers now state that this figure was certainly not paid to them, although on the other hand, the canners in applying for the rebate said that they themselves paid the full £10 per ton.

Owing to the dissatisfaction regarding the difference between the price received by the growers and the sum (£10 per ton), which the canners state they paid, a visit was paid to Adelaide by Mr. W. Young, the fruit-growers' representative on the Fruit Industry Sugar Concession Committee; enquiries were made in order to ascertain the exact facts of last season's operations, and as a result it is confidently expected that improved arrangements will be made for next season.

PRICE OF SUGAR.

Reduction Urgently Sought.

There is insistent public demand for a reduction in the price of sugar. Public meetings are being held throughout Australia, urging that the sugar industry should bear its due proportion of reduction in keeping with other industries. Many Federal members of Parliament favor a voluntary revision of the sugar agreement.

BANANA GROWING.

Mr. H. L. Anthony, General President of the N.S.W. Banana Growers' Federation, stated at a meeting of Bananā growers at Carool early in July, that the N.S.W. Banana industry was going ahead rapidly.

Large areas had been planted in the Coff's Harbor, Currumbin, Tallebudgera, Tweed and other districts, and would be bearing in the spring. It was necessary for something to be done to prevent glutting of the markets. The regulation of markets was a big step in the right direction.

Nature, too, would help inasmuch as the record spring planting of 12,000 acres in Queensland in 1930, and 3,000 acres in N.S.W. included land which was unsuitable for Banana growing and would not produce very heavily. In addition, some plantations had been neglected in both States and these also would not bear fully.

It was thus difficult to forecast what the production would be. However, there were sufficient good plantations which would cut very heavily.

Distribution was another problem. The Federation would endeavor to see that each market was properly supplied. Markets were delicate and had to be carefully watched. Eight agents had been appointed in Adelaide, and the first consignment of Tweed Bananas had left Murwillumbah on July 1. The response had been highly gratifying, and the sending of a percentage to this market would tend towards better distribution and improved stability of all markets.

A scheme for more orderly marketing was outlined by Mr. Anthony as follows:—That all growers shall agree to consign 25 per cent. of their fruit on each loading day to the Bananā Growers' Federation, the remaining 75 per cent. to be sent, as it is now, to any agent favored by the grower. The 25 per cent., Mr. Anthony suggested, could be consigned by the Federation on behalf of the growers either wholly or in part to the market or markets considered most in need of it.

AUSTRALIAN DRIED FRUITS.

Substantial Progress in Disposal of the 1932 Harvest.

THE COMMONWEALTH DRIED FRUITS Export Control Board advises that 755 tons Australian dried fruit were sold in Great Britain during the fortnight ending July 21. Sales included 234 tons Sultanas, averaging £63/6/6 per ton, and 497 tons Currants, for which an average price of £44/15/10 was realised.

Shipments for the season to date are 23,729 tons, of which 7,886 tons are reported to be sold for a total of £467,904.

The quantity unsold or afloat is 15,843 tons, only including 9,126 tons Sultanas and 6,220 tons Currants, together with 497 tons Lexias. At the corresponding date last year, sales were 7,131 tons for £327,511, and the quantity unsold or afloat was 15,899 tons.

Demand is moderate owing to the holiday season, and greater interest is unlikely for the next few weeks, when the normal seasonal demand should set in.

The support accorded to the industry by heavy sales to Canada and New Zealand, which have taken or will take by the end of July, nearly 17,500 tons, is of the utmost importance, and has markedly affected the internal finance of the seasonal production now estimated at not less than 53,000 tons, of which more than half will have been sold within five months of the opening of the season.

REGISTRATIONS.

Silk Bros. Interstate Traders Ltd., capital £5,000; fruit and vegetable merchants, etc. Subscribers, A. Silk, Grace K. Silk, M. Silk, Jessie M. Silk, H. Silk, Edith L. Silk, and I. Silk.

Niagara Park Growers Ltd., capital £2,000; packers and distributors of fruit, vegetables, farm produce, etc. Subscribers: C. P. M. Sheedy, E. H. Sheedy, G. C. Cousley, W. F. Townsend, Jane Cunning Townsend, Mary Anne Sheedy, and Lilian Maud Sheedy. Registered office, Niagara Park (N.S.W.).

Tasmanian Fruit and Products Proprietary Limited—Regd. 25/5/32.—Capital: £2,000 in £1 shares. Objects: To carry on the business of fruit and vegetable merchants, etc. First Directors: Fabert F. de Mey, Ronald A. Swan, John Swan, George A. Jackson and Alan W. Maxwell. Head office: Tasmania. Sydney office: National Mutual Bldg., 350 George-street.

Bowerman Bros., Shepherds-avenue, Pennant Hills West (N.S.W.), orchardists—Com. 1/6/32. Ptrs.: Spencer R., Edward G., and Harold Bowerman. Regd. 11/5/32.

Australian Bananā Corporation Pty. Ltd. Authorised capital, £50,000.

ASSISTANCE FOR FRUIT CANNERIES.

Reduction of Interest.

The Minister for Agriculture (Mr. Allan) announced on July 25 that he had been able to arrange for a reduction of interest guarantee for the Kyabram and Ardmona canneries from 6½ to 5½ per cent., as a result of which the canneries and growers generally in those districts would benefit to the extent of £1 a ton.

BATLOW PRUNING COMPETITION.

GREAT INTEREST is taken in the annual pruning competitions at Batlow, N.S.W. Results are as follow:—

G. B. Wilkinson, 1 (Pears: Josephines 85 points, Winter Coles 68, Packham Grafts 84; total for Pears, 237. Apples: Jonathan 83, Staymans 92, young Granny Smith 84; total for Apples, 259; grand total, 496; time allowance plus 1, making amended grand total of 497). W. Bartell, 2 (Pears: Jos. 80, W. Coles 85, Packham Grafts 80½; total for Pears, 245½. Apples: Jons. 85, Staymans 82, young Granny Smith 82; total for Apples, 249; grand total, 494; no time allowance). W. Vanzella, 3 (Pears: Jos. 84, W. Coles 68, Packham Grafts 86½; total for Pears, 238½. Apples: Jons. 43, Staymans 36, young Granny Smith 85; total for Apples, 244; grand total, 482½; time allowance plus 3; amended total of 485½).

The judges were Messrs. E. C. Whitaker and C. Buchele.

PORT OF LONDON.

We wish to acknowledge receipt of a nicely illustrated booklet entitled—"The Port of London." This gives a brief survey of the history of the Port, together with an outline of its present facilities and trade.

The Chairman is the Rt. Hon. Lord Ritchie, of Dundee; Vice-Chairman, Chas. Frederick Leach; General Manager, Sir David J. Owen; and Secretary, J. D. Ritchie, M.C.

Capt. A. W. Pearse, 10 Bligh-street, Sydney, is the representative for Australia and New Zealand.

CONTROL OF PEACH LEAF CURL.

Do Not Delay Treatment.

EXTENSIVE FIELD TRIALS conducted by the N.S.W. Department of Agriculture have shown that Peach leaf curl is easily and effectively controlled by spraying, either with Bordeaux mixture or lime-sulphur at winter strength, provided—and this is the important point—the spraying is carried out while the trees are still dormant but just before the buds swell. Judging by the number of inquiries concerning leaf curl control that reach the N.S.W. Department of Agriculture in the early spring, when it is too late to treat the disease, comment officers of the Fruit Branch, there are still many growers ignorant of the Department's recommendations.

When treating Peach trees for leaf curl, care should be taken to cover with spray every above-ground part of the trees, especially the extremities of small limbs and twigs.

Experiments have shown that in some districts 6-4-40 Bordeaux mixture, which is weaker than winter strength, will control the disease. In isolated cases growers have found it necessary to spray twice for Peach leaf curl control, one application being given just before the buds swell and the second when the flower buds are showing color. Such cases, however, are rare.

DEATH OF MR. C. W. ROSEN.

The death, in June, of Mr. Conrad Wilfred Rosen, senior partner in the firm of L. P. Rosen & Son, Fernhill Nurseries, Pennant Hills-road, Carlingford (N.S.W.), well-known Rose and citrus specialists, is much regretted by all with whom the deceased gentleman had come in contact. He was but 39 years of age and contracted influenza, bronchial pneumonia supervening and causing death after a brief illness.

The late Mr. Rosen started business as a boy with his father, Mr. L. P. Rosen, who has since retired from business, as far back as 1901, and his keen business methods and indomitable perseverance to which was coupled a most reserved and unassuming nature, assisted in the establishment of one of the most extensive nurseries in the State. His activities and enterprise have

done much for the development of horticulture in N.S.W. Mr. Rosen was a recognised authority on citrus plants, and was one of the nursery representatives on the N.S.W. Bud Selection Society. Being of a most observant and studious temperament, he secured valuable information on horticultural productivity from all parts of the world, and all associated with the industry in N.S.W. speak in laudatory terms of Mr. Rosen's practical knowledge and assistance in such matters.

The funeral was largely attended and wide sympathy is expressed for his bereaved family and relatives in their sad loss. A Masonic service was conducted at the graveside.

The business is now carried on by Mr. Rosen's partner, Mr. J. W. E. Larsen, who joined the firm on his return from the war in 1919, under the name of L. P. Rosen & Son. Mr. Larsen was a close associate of the deceased, and as manager assisted materially in maintaining the firm's prestige.

FRUIT AFFECTED BY FROST.

Mandarins and Lemons appear to be particularly susceptible to frosts, and fruits arriving on the Sydney market in mid-July showed "scald" near the stem end, fruit thus affected being bitter and having a deficiency in juice. Frost-affected Mandarins went at 2/- to 4/- per bushel, and those guaranteed free from frost at from 6/- to 8/-.

Lemons have been similarly affected. On the irrigation area the winter crop has been considerably reduced, and in other parts many of the trees have entirely lost their leaves.

Coastal and metropolitan Navels which arrived on the market were similarly affected, in some districts quantities of fruit having fallen to the ground, causing a considerable diminution in the expected harvest. As a result, Navels slightly improved in price, large sizes bringing to 6/6 a case.

It is thought that the damage to the Valencia crop will be lighter than with other varieties.

"Mummie, I want to go to the Zoo to see the monkeys."

"What an idea, Arthur! Fancy wanting to go and see the monkeys when your Aunt Jane is here!"



SHELL SPRAYING OILS

Have you placed your order yet for spraying requirements for the Spring? Ample supplies of high-quality oils--Shell Spraying Oils are still available.

The Shell Company Limited

Tasmania's Record Shipment.

Largest Quantity—Shortest Time.

(By Thos. Barnaby, Fruitgrowers' Shipping Representative, Hobart.)

The export of Apples and Pears from Tasmania, which commenced on February 26, and closed on June 9, was a record season. It was the largest quantity of fruit ever shipped from Tasmania to overseas markets, in a single season, and was despatched in the shortest time.

These two facts are of great importance to the industry, when the great difficulties facing Australian shipping at the present time are considered.

The total quantity shipped from Tasmania this year amounted to 3,360,000 cases, which included 307,768 cases from Port Huon, and 438,272 cases from Beauty Point.

Moreover, this record quantity was despatched overseas without a hitch, transported in forty-eight ships.

There was no undue accumulation of fruit on the wharves, so noticeable in the past. This may be largely accounted for by the better co-operation between the orchardists and the shipping agents, and the fact that the ships all arrived strictly on scheduled time.

On some occasions the ship's dates for receiving fruit was advanced, and orchardists were at times hard pressed to keep up with their obligations.

The fact that five vessels loaded at Port Huon also greatly assisted the position at Hobart.

Weather conditions were generally good, and there was no damage to fruit by bad weather.

In some instances it was necessary for ships to cease loading, on account of rain, but this caused no serious delay.

It was noticeable that right through the season, ships arrived in numbers together, and it was quite usual for four steamers to be loading together.

Quality and Appearance.

The quality of the fruit was very good, a large proportion being excellent. Some growers can still improve their packing and grading, irregular sizing being a common fault, but it is generally admitted that there was a most noticeable improvement this year.

There is still a tendency to pack too tightly, which accentuates bruising.

The appearance of the cases was brighter and cleaner, and the stencilling neater.

Though there were some very good lines of colored labels to be seen, the quantity was not so large as in previous seasons. A number of orchardists are using a patent printing machine which does very neat work.

The percentage of imported Canadian cases shows a considerable decrease in the South, but are still extensively used in the North.

No preference was given to the stowing of Canadian pattern cases, and the difference in their shape, when placed alongside the dump cases caused adverse criticism.

Inspection.

The inspection of fruit on arrival at the wharf, has again been carried out by officers working under the Federal Trades Description Act, and employed by the Markets Department of the Commonwealth.

A staff of twenty-six Inspectors were employed, the inspection being very thoroughly carried out.

During the season Mr. Duncan, Chief Public Service Inspector for the Commonwealth, visited Tasmania, in connection with the overlapping and dual inspection of fruit by both Commonwealth and State Officers, and it is satisfactory to know that from July 1, 1932, the export

of fresh fruit will be controlled by State Officers, empowered to carry out both the Commonwealth and the State Acts.

Handling and Stowing.

Considering the fact that over three and a quarter million cases have been shipped, the handling on the wharves has, on the whole, been good.

It must be realised by orchardists, that it is economically impossible to handle large quantities of fruit, in a very limited time, as perfectly as an individual can deal with a small quantity on his own property.

It has been quite common this year to have as many as four ships loading at the same time, two berthing at Ocean, and two at Queen's piers, and on three occasions a ship has loaded at King's pier as well. This has made complete supervision a difficult matter.

Every possible care was taken to guard against rough handling, and both the Inspectors and the Stevedoring Company have rendered every assistance.

The same methods of stowing have been employed this year as in the past. The stowing of lower holds which carry large bodies of fruit, is of greater importance than 'tween decks, in which the fruit only reaches a height of from seven to nine cases.

In the former, when the fruit is stowed all on the flat with the wide sides of the cases exposed it is much more liable to bruising caused by the men at work, walking and standing on the cases. The P. & O. Line has universally adopted the method of stowing holds three tiers on the flat and the fourth on end, this tier being so placed, and becoming the floor on which the next three are built, is better able to resist the strain and pressure, as loading proceeds. Some other companies claim that fruit should be stowed the way it is packed, that is, with the case resting on its base with the lid uppermost.

Either of these methods is preferable to the all-flat stowage, and it is noticeable that each year a greater number of ships are employing one, or the other, and also claim that better stowage is obtained.

Walking boards are always supplied, but it is difficult to maintain their adequate use.

When finishing off the square of the hold, directly under the hatch, their use is impossible, and it is then that fruit is most subject to bruising, if placed on its flat. Generally speaking the work of stowing the ships has been excellently carried out, many ships getting more fruit into their holds than in previous years.

Dunnage and Ventilation.

Special attention has been paid to the use of dunnage between the tiers of cases so as to ensure sufficient circulation of cool air throughout the hold.

The usual method is horizontal lathing between each tier and 2 x 2 in. each fifth, all placed athwartships with air breaks or spaces left between every six rows of cases, running fore and aft.

The Commonwealth and Dominion Line stowing on the flat, have always used the most elaborate system of dunnage, using vertical 2 x 2 in. as well as the horizontal.

Many ships, including the "Navasota," "Natia," "Fordsdale" and "Devon," used both vertical and horizontal lathing, the former being lightly nailed on to the case end to hold it in place. As these ships were all large car-

riers, the result should be interesting to record, and the idea appears a very good one.

Most of the ships carrying fruit from Australia are fully equipped with electric fans and air tanks, for forcing and circulating the cool air through the fruit.

A few of the ships that may be classed as "casuals" in this trade are only supplied with small portable fans which are worked from the deck. These fans cannot be considered so satisfactory where Apples and Pears are concerned, as the direct contact fan system.

Refrigeration.

Both the battery and the grid system are employed, and though it is quite possible to carry fruit well under either method, it is generally admitted that the battery system is the more desirable with the grid system where these are placed on the sides and top of the holds, and often in close proximity to the fruit, there is always a possibility of damaging the cargo by frosting and drip from the grids.

With the battery system the air is cooled before entering the hold, and being perfectly dry the risk of bad carriage is very small.

CO2 Appliances.

Special attention has been paid this year to the question of proper gas recording appliances being used, as during the past two or three years, some ships have carried their fruit faultily on account of excessive CO2 developing in the hold.

The need for care to avoid excessive CO2 has been impressed on the refrigerating engineers, and the successful claim lodged against the s.s. "Turakina" last year has also caused ship owners to exercise extra care.

Most of the ships employ thermoscopes for taking gas tests, and where these are used tests should be taken at least each 24 hours.

On large carriers where there may be from 25 to 30 compartments this means a big task, and probably a better way is the automatic recording apparatus.

With this instrument the amount of gas existing in any chamber may be checked at any time by the dial placed in the engine room.

This is a matter that should receive expert investigation, and it should be made compulsory that all fruit carriers should be properly equipped with gas testing and recording appliances.

The s.s. "Argylshire," which carried very nearly 200,000 cases of fruit from Tasmania this year, was not supplied with any such instruments.

Large Carriers.

Several ships calling at Tasmania this year, have lifted cargoes of from 180,000 to 200,000 cases. Notably the s.s.'s "Corrientes," "Hurunui," "Navasota," "Natia," and "Argylshire." These ships, specially chartered in England, came out in ballast. It has always been noticed that this class of ship takes much longer to complete loading than do those that are constantly employed in the Australian trade. The chief reason appears to be the extra cost involved by working overtime.

Pre-cooled Fruit and Pears.

The general opinion of ship's engineers is that unless it can be placed in a compartment by itself, the pre-cooling of fruit is useless and possibly harmful. A hold that contains both pre-cooled and ordinary shed fruit is more difficult to control owing to the difference in temperatures, when taken on board. It is much more satisfactory to have all the fruit loaded at an even temperature, and uniformly reduced to the correct degree.

The question of securing more special chambers for Pears for Tasmania should be considered, and this might be accomplished by specially guaranteed bookings of space by Pear growers, the shipments to be at regular intervals.

TASMANIAN APPLE EXPORTS.

Limitation of Sizes Suggested.

The low prices of fruit on the British market are causing growers in the Huon district much concern. At a meeting of fruitgrowers on July 15, a resolution was passed expressing the view that the slump in prices was due to over-supply, and that the time was opportune for approaching the Federal authorities with a view to eliminating from export all sizes of Apples below 2½ in. and about 2¾ in.

Mr. J. H. Mason stated that he did not think that there was any prospect of more than about 2,000,000 bushels of Australian Apples being successfully marketed in Great Britain.

REQUEST FOR EXTRA LEVY.

The Tasmanian Fruit Advisory Board is asking for an extra levy to be collected on fruit exported to enable the Board to carry on its functions. If this is refused, it asks for ½d. of the 3d. now collected for the advertising levy to be refunded to the Board.

Western Australia.

Record Export of Fresh Fruit.

A STATEMENT to hand from Mr. Geo. W. Wickens, Superintendent of Horticulture, Western Australia, shows that the total exports of fresh fruit from Western Australia to overseas markets for year ending June 30, 1932, were 831,915½ cases, which constituted a record. This total was made up of Apples (725,519), Grapes (54,171), Pears (44,189), Oranges (7,300), and smaller quantities of Plums, Nectarines, Peaches, Tomatoes, Quinces and Lemons.

The principal ports to which the fruit was sent were London (504,042 cases), Hamburg (116,703), Stockholm (58,599), Glasgow (26,835), Singapore (21,356), Liverpool (20,537), Rotterdam (19,330), Colombo (18,257), with smaller quantities to Batavia, Bombay, Mauritius, Port Said, Southampton, Sourabaya, Samarang, Calcutta, Penang, Bremen, Hull, Manchester, Durban, Auckland, Shanghai, Rangoon, Antwerp and Palembang.

The previous record was in 1929 when 737,676 cases were exported to overseas markets, comprising 654,982 cases of Apples, 30,474½ cases of Pears and 48,683 cases of Grapes, together with smaller quantities of Peaches, Plums, Nectarines, Tomatoes, Rock Melons, Passion-fruit, Quinces, Persimmons, Oranges and Lemons.

W.A. Citrus Crop.—The West Australian citrus crop is estimated at 205,000 bushels.

W.A. Secession.—Mr. H. Gregory, M.H.R., is continuing his active campaign for the holding of a referendum to secure the secession of Western Australia from the Commonwealth.

Orchard Spraying.

Codlin Moth: Arsenate of Lead, White Oils, Spreaders: Orchard Hygiene: Lime Sulphur Sprays: San Jose Scale is very Dangerous.

Instructive address by Mr. A. A. Hammond, Acting Chief Orchard Supervisor, Victoria.

AT THE FIELD DAY at Harcourt on June 28, Mr. A. A. Hammond, Acting Chief Orchard Supervisor gave an appreciative address to growers on the subject of spraying to control orchard pests. A summary of the hints conveyed was as follows:—

Codlin Moth.—In addition to the standard spraying, supplementary orchard hygiene methods should not be neglected. During the dormant season all loose bark, stakes, props, etc., which shelter hibernating caterpillars, should be removed and all codlin larvae destroyed.

The use of a summer white oil combined with lead arsenate and a lime casein spreader was recommended. A lime casein spreader should always be used with an arsenate oil combination, otherwise a blotch spray resulted, which necessitated wiping the fruit.

The strength of mixture recommended was 2½ lbs. of arsenate (powder form), ½ lb. casein spreader, and 10 pints of oil to 80 galls. of spray, for the two first cover sprays. For later sprayings reduce the oil to 3 or 4 pints to the 80 galls.

San Jose Scale.—This was one of the most destructive of the scale insects, it attacked deciduous trees, also native ornamental trees and shrubs. The order Rosacea was particularly susceptible, also elms, willows, wattles, etc. In a recent visit to the Goulburn Valley he noted that the wattles were badly infested. These should be rooted out. Even if showing in only a small way the pest was dangerous, as it had all the possibilities of spreading rapidly. Growers should aim at nothing short of total eradication. Lime sulphur was probably the best remedy. If growers made their own lime sulphur they should use a hydrometer to test the density.

Ingredients: 100 lbs. flowers of sulphur or ground sulphur, 50 lbs. lime (lime oxide). This should be boiled for one hour in 65 gallons of water, which would leave a residue of about 50 gallons. The preparations should be kept boiling for a full hour after boiling commenced. The standard strength of commercial lime sulphur was 32 deg. baume. The home-made mixture, however, was frequently of the strength of 26 deg. to 28 deg. baume. The strength of the 32 deg. baume was one in nine. No harm would result in attacking San Jose scale if using the strength one in seven. However, for the home-made mixture the strength one in seven was necessary if the average was 27 deg. baume.

The quantity of stock mixture to use for each 80 galls. of spray was according to its baume strength, as follows.—For a liquid testing 32 baume, use 8 galls. to 80 galls. of spray, for 31 B., 8½ galls.; 30 B., 8½ galls.; 29 B., 9 galls.; 28 B., 9½ galls.; 27 B., 9½ galls.; 26 B., 10 galls.

After preparing the lime sulphur it should be kept sealed. One useful method of doing this was to pour half a cup of lubricating oil on top, which had the effect of excluding air. Use an iron boiler. For summer strength use the strength of one in fifty if a hot day, but the strength of one in thirty would not be harmful if used on a cool day. It was dangerous to use the mixture on a drizzling day.

A combination of lime sulphur and winter white oil was being tested, and had proved very promising. The

proportions used were 5 galls. of lime sulphur, 32 baume or 6 galls. of home-made lime sulphur plus 2 galls. of winter white oil to 80 galls. of spray. This spray was recommended for trees with rough bark, as it was more penetrating than lime sulphur alone.

San Jose scale was viewed so seriously that it was possible that those districts, in which the pest was prevalent would be quarantined.

Certainly no grower could export fruit if the San Jose scale was present in his orchard. If red oil was used the strength was four in eighty. A useful spray was lubricating or fuel oil combined with Bordeaux mixture.

To prepare a cold oil emulsion that will combine with Bordeaux mixture, add 3 galls. of a 3 per cent. bluestone solution to 4 galls. of fuel or lubricating oil, stir and add 1 gall. of a 10 per cent. milk of lime. This should then be forced through spray nozzle.

A 3 per cent. bluestone solution was approximately 1 lb. of bluestone in 3 galls. of water, and a 10 per cent. milk of lime, 1 lb. of fresh lime in 1 gall. of water. The oil used should have an asphaltum base as oils with a paraffin base were difficult to emulsify in this way.

A useful spray was lime sulphur and arsenate of lead. This combination should never be used without adding a casein spreader, using ½ to ¾ lb. of the spreader to 80 gallons water. Skimmed milk and lime were quite serviceable for use as spreaders, using three quarts of skimmed milk, ½ lb. lime.

The order of mixing was lime sulphur when vat half full, spreader when ¾ full, and arsenate diluted in orchard when ready to spray. It was immaterial in what order lime sulphur or lead was added so long as these materials were not combined until immediately before use. The agitator should be going whilst mixing is in progress.

In using a lime sulphur spray, vaseline should be rubbed on the face and hands. Wear an old hat and do not spray into the breeze. Red spider was also killed by the lime sulphur spray. If arsenate of lead were mixed with white oil to which a casein spreader has been added there would be effective coverage of the poison with no visible trace of the residue for removal.

The late dormant period was too late for spraying for the San Jose scale.

* * * * *

Mr. Hammond answered several questions.

How is San Jose scale disseminated?

Answer.—By birds, wind and by the agency of other insects.

Can San Jose scale be introduced through empty cases?

Answer.—Yes. An instance of an orchard in the southern district becoming infested in this way had come under his notice. Secondhand fruit cases which it was afterwards ascertained had come from a scale infested district, were brought to the orchard and the paper linings were placed in the forks of Pear trees for the purpose of trapping codlin larvae.

Fortunately the scale was detected before it had spread beyond the Pear block and was eradicated by fumigation with hydrocyanic acid gas.

Should prunings be burnt?

Answer.—Yes. Burn all sawn-off limbs and prunings as any scale left on such would be kept alive for some time on the sap.

Would scale be removed from the fruit if washing with hydrochloric acid?

Answer.—Tests would need to be made. In any case the fruit would be condemned if it had the scale dead or

alive. The scale made unsightly marks, destroying the commercial value of the fruit. The San Jose scale sucked the sap and injected the poison. Limbs infested with this scale when cut would be as red as beetroot.

Is hydrated lime suitable for spreaders?

Answer.—Yes. If not too old, use one-third more than ordinary lime. Hydrated lime was now superseding ordinary lime in U.S.A.

Mid-Murray Notes.

Pruning Competitions for Boys—Green Manure Crops Ploughed Under—Business Delegation Visits Irrigation Settlements—Field Demonstration—Increase in Vine Plantings.

RENMARK, July 18.

PRUNING is well in hand on all sides, and vines are taking on the appearance of having been to the barber.

The school boys are to have a pruning competition at the end of July, which is now an established practice—quite an event of the year. Each school in the district, Crescent, Renmark West, Renmark North, Renmark Town, and Renmark High School, have appointed instructors selected from among the qualified men pruners, who instruct the lads in the art of this branch of our work. So keen are the boys on their work that this competition has grown from a few competitors to over 40 entrants, and the work done compares very favorably with many of the senior competitors.

The idea of instructing school boys in this art is both practical and theoretical, for it instils into the mind of the men of to-morrow, an interest in the growth of the vine and its life's work, which is fully explained by the instructors.

When the boys then leave the primary schools and enter the high school, an agricultural course will be open to them, the grounding of which is firmly laid by the primary schools and their pruning competitions, they develop a horticultural sense which helps them greatly in their future work, on the land.

FROSTS HAVE BEEN FEW this winter, but severe when they happened to come along.

Green fodder crops, in places—where they were advanced enough to be nearly ready for ploughing in, were flattened out and are now being ploughed under. This is the first time the writer has seen a frost so severe (we had a week of it) as to actually freeze and kill growing crops of legumes. One morning the thermometer registered 13 deg. of frost on the grass. Beans fared better than peas, and although beans were bent over and assumed an angle of 45 deg., they have not been killed outright like many of the peas; self-sown stands of melilotus clover suffered in places where the plants were well advanced, while late melilotus was unaffected.

A business delegation visiting the irrigation settlements toured the Renmark areas on Tuesday and Wednesday, July 12 and 13, calling in at the Renmark Fruit Growers' Co-operated Packing Shed, Growers' Co-operated, Angove's Distillery, "Fairview" Orange orchard, pumping stations, schools and various places of interest. On Tuesday, 12th, a civic reception was given them in the institute, at which about 500 people attended. This tour was inaugurated by the S.A. Chamber of Manufactures, headed by its President, Mr. Oscar Seppelt, and com-

prised every secondary industrial interest in the State, with the idea of creating a cordial spirit between the primary and secondary industries and at the same time awakening the minds of local residents the need for buying where you sell. This delegation of some 30 influential business men were much impressed by Renmark and its system of irrigation, established in a semi-arid region which 40 odd years ago carried about one sheep to ten acres, now produces in dried fruit, wine, spirit and brandy, and Oranges, a monetary value of nearly half a million pounds sterling.

A FIELD DEMONSTRATION of horticultural implements was held at Messrs. Basey and Howies' orchard on July 13, by H. V. McKay Ltd. Much interest was shown in the various kinds of implements, especially in the double furrowed disc plough and a single furrowed ditching plough. This latter implement throws out both ways and will be in much demand with the growing practice of burying vine cuttings.

Mr. R. M. Voullaire, Jnr., of Merbein, first introduced this method of disposing of vine cuttings many years ago on his vineyards, with so much success that it is now becoming a recognised practice in these areas. It has many advantages when combined with the growing of green manure crops, as it has been computed that Sultana vine cuttings, when put back into the soil possesses a value in phosphoric acid of 1 cwt., which is equal to more than 2 cwt. of commercial 45 per cent. This is quite a considerable advantage over the old method of raking the cuttings off and burning them.

ROOTED VINES have been much in demand, and the supply has been short this year. Growers are planting up every available corner of land, and all misses are being filled up; owing to the satisfactory prices received on the overseas market for our dried fruits.

These prices are to a great extent governed by the laws of supply and demand and Australia is benefiting by the temporary shortage in other producing countries.

While prices of dried fruits remain satisfactory, land values are gradually increasing, and sales have been recently made at appreciated values, comparing them with those prevailing during years of low returns.

A vein of optimism prevails throughout the dried fruit areas.—Nemo.

Smythe: "I wonder when Clarence is going to stop acting the fool."

Smith: "That's the trouble; he's not acting!"

Manuring of Orchards and Vineyards.

Manuring of Apples.

An Appreciated Lecture on the Subject of the Manuring of Apple Trees was delivered at Harcourt by Mr. F. M. Read, M.Ag.Sc., Senior Horticultural Research Officer (Victorian Department of Agriculture), on June 28.

In the course of his remarks the lecturer stated as follows:—

THE PROBLEM OF SOIL FERTILITY in the orchard is a very complex one, and it is not to be expected, therefore, that by the use of artificial fertilisers alone will it be completely solved. Too often the grower expects manures to do what can only be done by better orchard management—cultivation, drainage, etc.

There is probably a place for artificial fertilisers if we can be sure that all other phases of management are receiving their proper share of attention. The most important feature in which Victorian orchards, as a whole, can be improved is the ploughing under of greenstuff in the spring. The importance of humus added in this way is tremendous.

If the orchard will not naturally grow a luxuriant winter cover, the grower should try and increase this growth by top-dressing in the autumn with either sulphate of ammonia, 1 cwt. per acre, or superphosphate, 2-3 cwts. per acre. These dressings should be tried initially on small experimental areas before any large outlay of money is made; for the results secured will vary markedly from one district to another. Of course, the sowing of green crops, particularly peas and beans, is even more desirable if it can be done.

The manuring of the trees is a more difficult problem. There can be little doubt that in many cases money so spent is being entirely wasted. Conversely there are probably areas on which more liberal applications than are given at present could be made economically.

The potash experiments which we are carrying out with Jonathan Apple trees watered with carefully controlled nutrient solutions, are giving promising results. It is hoped to obtain from these experiments the symptoms exhibited by a tree when it lacks any one of the minerals usually given in fertilisers.

For instance, trees which have received no potash in their diet have developed leaf scorch—a browning and shrivelling of the leaf margins. This trouble is very prevalent in our orchards in some years, and may be expected to yield to potash applications.

Trees lacking in nitrogen develop small pale green leaves and reduced growth, the bark is red brown.

Those without phosphoric acid seem to develop a purple margin to the leaves, particularly on defoliation, and the leaves fall very early. The bark resembles the nitrogen deficient trees.

Lime deficiency has caused a peculiar mottling of the leaves and a tendency for the leaves to go purple before they fall.

It is not suggested that the results of the first year's work should be treated as final. They are, however, likely to lead to important conclusions in a year or two.

Summing up, one might, on a great deal of evidence both here and abroad, say that if the growth of the trees is vigorous and quite healthy, no measurable increase in yield is to be expected from the use of any fertiliser at all.

If the trees appear to be making less growth than is desired, a complete fertiliser of a 2:2:1 mixture of sulphate of ammonia, super. and potash, should be given at the rate of say 4-5 lbs. per tree of average size. It is to be distinctly understood that such a complete dressing is advocated simply because at present we are un-

able to definitely determine the actual fertiliser required in each case.

When "leaf scorch" is prevalent, however, we have already fairly reliable evidence that potash alone at the date of 3-4 lbs. per tree should be used until the trouble is controlled. The other fertilisers on such areas should be withheld. Of course, there are more aspects to "leaf scorch" than the manurial aspect. For a general description of this disorder, see previous issue of "Fruit World."

The fertilisers should be applied in the spring, say 2-3 weeks before blossoming because the great bulk of the tree's requirements are taken in in the early part of the growing season.

ORGANIC MANURE FOR FRUIT TREES.

Apply During the Winter.

ORGANIC MANURES are highly valuable in maintaining the texture and fertility of orchard soils.

Where it is intended to apply stable manure or bush rakings or a green manure crop has been grown, ploughing-in should not be delayed (writes the N.S.W. Department of Agriculture).

Both in coastal and inland soils farmyard manure has proved very beneficial to fruit trees. Unfortunately it is difficult to obtain, so that the grower generally has to be content to treat only a section of the orchard each season. It is probable that the chief benefit derived from stable manure is the increased humus content and thereby improved physical condition of the soil, especially with regard to its water-holding capacity. Every opportunity should therefore be taken of applying bulky organic matter, such as bush rakings and the first cuts from lucerne, which will rot down and add to the amount of humus.

It should be remembered that

the nitrifying bacteria

which are necessary to convert such vegetable matter into humus require nitrogen, and thus use and temporarily lock up the available nitrogen in the soil. Hence it is preferable to apply bulky organic matter during the winter, when this locking up of available nitrogen will prevent its loss by seepage; moreover, it will give time for the process to complete and the nitrogen to be available again to the trees when they awake into activity in the spring.

Where bulky organic matter such as bush rakings, which contains only comparatively little nitrogen, is applied it is an advantage to give a dressing of sulphate of ammonia and carbonate of lime, allowing about $\frac{1}{2}$ cwt. of the former and $\frac{1}{4}$ cwt. of the latter per ton of rakings. When estimating the weight of bush rakings, the weight of the leaf only should be calculated, not of any soil or stones that have been collected with the rakings.

Green manuring (the ploughing-in of crops grown for the purpose) is a useful means of maintaining the humus content of the soil, but it has its limitations. In districts where the normal rainfall is little more than sufficient to maintain the tree and produce satisfactory crops of fruit, green manuring cannot be resorted to unless irrigation can be practised;—even when the rainfall is ample or irrigation is possible it is often difficult to obtain a heavy

growth in time to be ploughed under during the latter part of winter. As already indicated, ploughing under of a green manure crop must be completed not later than July in order that it has time to rot and yield up again the plant foods it has locked up in the soil. Moreover, if left until later and there is a dry spring it will deplete the soil seriously of moisture required by the trees.

MANURING OF VINEYARDS.

THE MANURING OF VINEYARDS formed the subject of an interesting address by Mr. A. V. Lyon, M.Agr.Sc. (of the Commonwealth Research Station, Merbein, Vic.), at a recent meeting of the Block E branch of the South Australian Agricultural Bureau.

After speaking on research results, plant foods in fertilisers and manual practice, the following recommendations were made:—

1. The growth of leguminous plants as cover crops on alternate rows.

2. The use of a fertiliser containing phosphoric acid (up to 4 cwt. superphosphate per acre or its equivalent) half of which is applied with the seed for cover crops, and half in early spring.

3. The use of nitrogenous fertilisers (up to 2 cwt. sulphate of ammonia or its equivalent) on all vineyards where the growth of the shoots is not satisfactory.

4. A diversity of opinion exists in regard to the necessity for adding potash as a plant food. It probably has a value in improving the quality of the growth, and giving greater resistance to parasitic fungi.

Mr. Lyon then went on to speak on losses from the soil, fertiliser experiments, traditional practice, special aspects of the present season, and in conclusion, said he would like to remind growers that the application of fertilisers is but one of many factors affecting yield. To get full value for the fertilisers it was necessary that the other essential work of the vineyard, including working of the soil, pruning and control of irrigation water, should be carried out at a satisfactory standard.

AUSTRALIAN TRADE PUBLICITY IN CANADA.

The Australian Trade Commissioner in Canada, Mr. L. R. Macgregor, recently furnished the Australian Overseas Trade Publicity Committee, with a report giving details of Australian Trade Publicity in Canada. The activities included lectures before public bodies and schools. School children promised to ask Mother to buy Australian dried and canned fruits. No less than 27,000 school children were reached in this way. Window displays were also arranged, and radio talks given: calls were made on distributors, also bakery and confectionery institutes.

COULDN'T READ BY WIRELESS.

Sandy: I dinna think much of the wireless set the kirk presented me with.

Jack: No? and why Sandy? It was a two-valve set.

Sandy: A' weel, the bulbs don't give me enough light to read by.

Lime for Agricultural Purposes.

Lime is necessary for so many classes of soils that the following notes from Mr. A. G. Strickland, M.Agr.Sc. (Research Officer, Victorian Department of Agriculture), will be found to be of considerable interest. Thus:

All liming material does not have the same neutralising power, that is, 100 lbs. of freshly burnt lime will neutralise as much "soil acid" as 179 lbs. of ground limestone. Liming recommendations are generally made in terms of ground limestone, and in the use of other materials in place of ground limestone, the position is as follows:—

	307 lbs. of gypsum.
	179 lbs. old air-slacked burnt lime.
179 lbs. of ground limestone is equal to . . .	135 lbs. water-slacked burnt lime.
	100 lbs. freshly burnt lime.

The comparison with freshly burnt lime refers to the latter product immediately after burning, where maximum results have been obtained. Ground limestone (calcium carbonate) is limestone rock in a natural form, ground in a mill.

Its action is more gradual and milder than burnt lime. Ground limestone does not alter materially with the effluxion of time, and can be stored without effecting its efficiency.

Burnt lime is higher in neutralising value than all other forms, but its effectiveness gradually diminishes as it becomes slack through the action and moisture in the air, which tends to alter the chemical action of the burnt lime from calcium oxide to calcium carbonate. Even after burnt lime is applied to the soil re-carbonation continues, and it quickly reaches a condition in which it is no more effective than ground limestone.

The position with burnt lime may perhaps be summarised as follows:—

(1) Although rapid in action, its efficiency over other forms depend entirely upon the extent to which the gradual change from calcium oxide to calcium carbonate is held in check by exclusion of air and moisture.

(2) After application to soil, its relatively stronger action must steadily diminish as the lime changes to the same chemical form as ground limestone.

(3) Hot burnt lime may detrimentally affect the action of bacteria, which produce nitrogenous condition and incidental fertility.

(4) Burnt lime stored for any length of time is liable to danger from fire. Action of lime quickly destroys bags.

(5) Freshly burnt lime is most objectionable to handle.

Ground limestone of approved and guaranteed analysis and fineness of grading, is recommended because of its lower cost (making allowance for greater bulk). Because its strength does not vary by effluxion of time.

MANCHESTER
(Via the Ship Canal)

Nearest Port for over 200 Towns and a Population of 12 millions. Do you ship direct to this Great Market or by more expensive routes?

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CAPT. W. J. WADE - 8 Bridge St., Sydney

Its action on the soil is mild, and can be stored and handled with safety.

Quantity to be Applied.

As a guide, it may be stated that a reasonable application is—11½ cwt. burnt lime is equal to a ton of ground limestone. Application will depend entirely upon soil conditions, and the above comparison must be regarded as a statement of proportion of lime in one form, as compared with lime in another form.

Comparison of Costs.

The comparative costs of ground burnt lime and ground limestone on a 10-ton truck basis is:—

Ground Burnt Lime:

10 tons at 55/- ton	£27 10 0
Freight, 50 miles at 3/8 per ton	1 16 8
Cartage to orchard at 2/6 per ton	1 5 0
Total	£30 11 8

Ground Limestone:

17 tons 18 cwt. at 25/- ton	£22 7 6
Freight, 50 miles at 3/8 per ton	3 5 8
Cartage to orchard at 2/6 per ton	2 4 9
Total	£27 17 11

is so small (about ¾ per cent.) as to be negligible. It is therefore recommended that orchardists first of all procure lime of good quality and store by one of the following methods:—

1. Small quantities may be weighed off, and covered with water in a kerosene tin, and so kept until required. For larger orchards quantities according to the amount of spray mixture which will probably be used can be put down.

2. Larger definite weights of lime may be placed in a barrel and made up either to a definite weight or a definite volume with water. Each aliquot then withdrawn will contain a definite quantity of lime, the amount of which can be simply and readily calculated.

SAN JOSE SCALE.

Export Regulations to be Tightened.

The French Government has informed the Australian export authorities that owing to the discovery of San Jose scale on some recent shipments of Apples and Pears from Australia, it had decided to impose severe restrictions on the importations of Apples and Pears from Australia.

Herbert Wilson

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Fruit Merchants

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A Trial Consignment soli-
cited from Growers in all
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Prompt Settlement.

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LIME FOR SPRAYS.

Best Method of Storage.

NOT ONLY is a certain difficulty sometimes experienced by the fruitgrower in obtaining lime of good quality for the preparation of such sprays as lime-sulphur and Bordeaux mixture, but even when a suitable lime has been procured and has given satisfactory results, there remains the problem of efficient storage.

Quicklime becomes first air-slaked and is then converted into carbonate of lime, with the consequence that the resultant proportion of effective lime after storage constitutes a variable quantity, according to the quality of the original article and the conditions of storage. The preparation of sprays with the accuracy necessary for consistently good results thus becomes almost impossible.

As the result of experiments carried out by the N.S.W. Department of Agriculture, however, it has been established that lime may be stored under water without appreciable alteration for periods of even twelve months; there is a slight decrease in the effective lime, but it

It is now feared that not only may France prohibit entirely the importation of Australian fruit, but other Continental countries may be tempted to do likewise.

In view of the seriousness of the matter, it is the intention of the Federal authorities to take immediate steps to tighten up the export regulations by the reintroduction of the condition which existed prior to 1927. This means that only only will fresh fruit affected by San Jose scale be prohibited from being exported, but so also will clean fruit which has been in contact with affected fruit, or which has been produced in any orchard where scale exists.

Mr. J. W. Morriss, of the Municipal Markets, Sydney, N.S.W., has excellent business connections in citrus fruits, drawing his supplies from the leading districts of the State. Having had a lifelong experience in the business, his advice is always available to enquirers.

By supplying high-quality fruits, Mr. Morris has built up a worthwhile connection among fruit buyers.

QUEENSLAND.

Gympie, 17/7/32.

With the advent of the frosts in the south, the bean market has attained a very healthy tone, consequently there is a large quantity leaving this district, and for the last four weeks 8,568 cases have been consigned to the southern markets. There were 90,852 cases of Bananas, 1,407 cases Pineapples, 220 cases of Tomatoes sent to the south during the last four weeks.

Queensland Oranges—Competition from N.S.W.

An enormous number of Queensland Oranges are being allowed to rot, while there are thousands of cases from the irrigation areas of N.S.W. which do not compare with the Queensland product, in either juice content or quality being sold in Queensland, the reason being that the southern fruit has a better appearance and is favored by shopkeepers as they make a better window display. It is difficult without judicious advertising to convince consumers that the Queensland Common Orange is superior in flavor and juice to the best Navel Oranges coming here from the south.

Banana Planting.

At the July meeting of the Banana Protection Board, consideration was given to the granting of permits to plant, and it was resolved that as there were so very few "clean" districts where disease-free suckers could be obtained, permits would be granted where it can be shown that sufficient efforts had been used to control diseases, and suckers from such areas would be permitted to be used.

The chief inspector reported that good fruit was developing in the Currumbin area, but indications pointed to a big decrease in the Nambour, Cooran and Gympie districts, where considerable areas of worn-out plantations were being cleaned up, cattle being used considerably for the purpose. On the Blackall Ranges non-commercial areas were also being destroyed, the growers making strong efforts to comply with the regulations.

Macadamia Nuts in Demand.

So great has the demand been for Macadamia (nut) trees in the Gympie district that the nurseries are all sold out and are very busy preparing for a good sowing for next season's planting. One dairyman in this district has three nut trees in his paddocks, and last year he showed a profit of £15 after using and giving away a good quantity. The trees being evergreen and well spreading, afford splendid shade for cattle.

During the next three months the output of Bananas will be light, there has not been the usual seasonal rains and the bunches are becoming very "shy." Several growers are now concentrating on small crops to replace the Bananas and have installed irrigation plants, whilst the areas being put under Pineapples will almost double the acreage.

Seville Oranges are now being sent to the factories, each grower having been allotted his quota on a 50 per cent. basis of their estimate of his crop, but should canners' requirements be more, the C.O.D. will allocate accordingly.

Banana Bagging as a Thrips Preventive.

Owing to the supplying of unsuitable bags and not putting them on at the correct time, another test is to be carried out, it is absolutely essential that the bags be put on before the flower bract opens, if not the thrips enter and deposit an excretion on the young fruit that, when the sunlight gets on the fruit it excoriates it, thereby causing a thickening of the skin; although the skin is damaged the flesh still is good for consumption.

The sugar growers here are putting up a determined fight to have the embargo on sugar retained and an advertising campaign is in vogue to counteract the efforts of the Consumers' Association in the southern States.

The Committee of Direction of Fruit Marketing have given notice of their intention to issue directions regarding Strawberries and Papaws under the "Fruit Marketing Organisation Acts, 1923 to 1930." This will ensure the marketing of good fruit.

Mr. Douglas Gow, of Stanthorpe, has established an enviable record in the Orient Cup competition. He won first place in 1930 and 1931, and has this year tied for first place with Messrs. Butz Bros., each gaining 184 points as follows:—Gow, Sydney, 87, London 97; Butz, Sydney 89, London 95; other competitors were:—A. A. Davey (Applethorpe), 88, 93½—181½; R. G. Wells (Thulimbah), 87, 93—186; P. E. Thompson, 90, 90—180; R. V. Chapman, 87, 91—178; H. Lineker, 82.

The C.O.D. is endeavoring to find native or wild Bananas in the hope of being able by experimentation to evolve a species of Banana suitable for Queensland conditions, more especially to be a disease-resisting type.

August is to be a busy month amongst the several fruit-growers' organisations sectional groups. The Banana Sectional Group Committee meet 11th, Pineapple S.G.C. 18th, other fruits S.G.C. 26th.

QUEENSLAND.

In a letter to hand from Mr. Hedley Dempster, of Thulimbah, Queensland, written under date, July 2, he states:—

The Stanthorpe season (1931-32) was one of the longest experienced. Owing to the thrips in N.S.W., good prices were obtained for all early classes of fruit from this district and fruit went forward until late in June. Frosts were very slow in coming, and nothing of any importance was experienced until about June 12, and again from the 20th onwards.

Do not run any Financial Risk with your Fruit
but Consign it to

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Harcourt Fruit Supply Co. Ltd.
Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.
New South Wales: N.S.W. Central Citrus Assn. Ltd.
Batlow Packing House Co-op. Soc. Ltd.

CLEAN FRUIT *means* CLEAR PROFIT

TO THIS GROWER

THIS is also the reason why most of the leading Orchardists all over the Commonwealth, after years of experimenting with different arsenates, have definitely decided on "Aero" brand Arsenate of Lead.

We have scores of testimonials from Orchardists who have safeguarded their profits by spraying their apples and pears with "Aero" brand.

These gratified users have expressed entire satisfaction with this super quality product.

"Aero" brand Arsenate of Lead is so light that it readily mixes in the spray tank, where it suspends so perfectly that it gives the maximum coverage, it also clings well to the foliage. It is so impalpably fine that you can spray all day without a choke in the spray nozzle.

The arsenical content of "Aero" brand Arsenate of Lead is so high that it ensures the fullest protection against codlin, yet the free arsenic oxide content is so low that it will not burn or scald the foliage. "Aero" brand is indeed a superlative quality Arsenate of Lead, and it is no dearer than inferior arsenates.

AWARDED GOLD MEDAL All Australian Exhibition 1930

We were the first makers of powdered arsenate in Australia, and "Aero" brand is the result of years of research in our chemical laboratories.

Our Interstate Agents (see below) will gladly supply you with full particulars of this Gold Medal Product.

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The Home of Bickford's "Aero" brand Arsenate of Lead



A view of our new Arsenate of Lead works at West Croydon. The building is constructed on the most modern factory lines and is replete with every convenience for the comfort and welfare of the staff.

WE have manufactured and sold Arsenate of Lead now for well over twenty years, and, following upon a wonderful improvement in our product some ten or twelve years ago, we placed the product on the market under the now well-known name of "Aero brand" Arsenate of Lead. We were the first firm in Australia to manufacture Arsenate of Lead Powder, and the surpassing fineness and lightness of texture of our product have never been approached by any other make.

We employ a special process which yields a product of superlative quality, and the new plant which we erected four years ago enables us to manufacture to an even higher standard than before, since new methods of control and adjustments

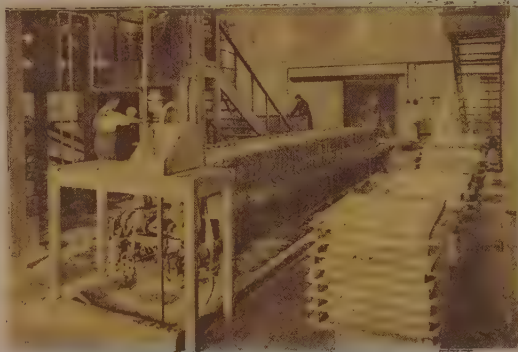


An interior view of our new Arsenate of Lead plant showing the huge vats. The one in the foreground contains the slurry as fed to the filter press pumps.

have been introduced that were not previously available. Analytical control is exercised over every batch of "Aero brand" Arsenate of Lead.

The most exacting tests are employed to ensure uniform fineness and lightness, a high percentage of Arsenic and a very low percentage of soluble Arsenic. "Aero brand" thus sets a new standard in its low soluble arsenic content.

"Aero brand" Arsenate of Lead is fully guaranteed and in whatever proportion used will give equal or superior control to that of any other brand used in similar strength.



Another view of our new Arsenate of Lead plant, showing the giant filter press where the Arsenate is separated from the water.

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The trees did not shed their leaves till very late; in some cases stone fruit began to come into flower and a few Apples also, but the heavy frosts have stopped that now.

Pruning is well on the way now, and the end of the month should see the spraying machines at work.

The packing shed movement is gaining ground, and before the coming season it is hoped to see one or two more in the north end of the district.

STRAWBERRY CULTURE IN QUEENSLAND.

New Varieties of Merit.

Pest Control and Manuring Methods.

THE Minister for Agriculture and Stock has made available a report on the Strawberry plot at Palmwoods from Mr. R. L. Prest, Instructor in Fruit Culture, at Nambour.

The plot is situated at Chevallum, near Palmwoods, and has been under observation for the past twelve months, the main objective being the selection of superior strains of the Aurie and Phenomenal varieties. In each case the runners, obtained from Montville and Buderim, respectively, showed a good strike, followed by very even growth.

in a severe outbreak of Strawberry mildew, necessitating the removal and burning of all foliage and rubbish. Weather conditions did not favor the spread of leaf scorch and eye spot. Red spider and thrips infestations were effectively controlled by dusting with sulphur dust, and aphids by dusting with nico-dust.

For fertilising, the plot was divided into two sections, each of which received an application of a different fertiliser at the rate of 4 cwt. to the acre on the runners becoming established, and a second similar application when the plants blossomed. Although the trials are incomplete, it would appear desirable to use a fertiliser of which the units are derived from an inorganic source. —"Queensland Journal of Agriculture."

ORIENT CUP COMPETITION.

Mr. D. Gow, of Stanthorpe, Queensland, won the first prize in the Orient Cup Competition in 1930 and 1931, and this year he has tied for first place. This shows the high quality of the Stanthorpe Apples. The Granite Belt is well ahead of the rest of Australia in the prize list.

The cup is arranged by the Orient Steam Navigation Company for the best four cases of Apples suitable for

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Specialists in Australian Fruit.

Sole agents consignments of Apples, Pears, Etc.

Our record of over 30 years' standing in the handling of Australian fruit, with satisfactory results, is a recommendation for growers to ship their fruit to our house.

Representatives—

International Fruit & Mercantile Company Ltd., Melb., Vic., Australia; and A. J. Walshe & Co., Hobart, Tasmania.

The plants budded freely and produced an excellent crop of large-sized berries of good color and firm texture. The best plants in each case were selected for runners for future plantings. Those two appear to be the most suitable varieties for commercial plantings in the Palmwoods district on account of their vigor, production, and the quality of fruit. It is hoped that selected runners of these varieties will be available at the end of this season for a limited distribution to interested growers.

Other varieties were also under observation; Aird's and Frenchi proved to be vigorous growers, producing berries of good size, color, and quality; they are in many ways similar to Phenomenal. Creswell Seedling, King Edward, and Wilbur grew vigorously, but produced only moderate crops of small, dark-red berries, which would not command very satisfactory market prices. A reputed Marguerite-Phenomenal cross was received too late to be seen at its best, and it, together with the others mentioned, except Aird's variety, will be given further observation. Spakeman's Seedling, although a vigorous grower, produced small and poorly distributed fruit, and was very susceptible to leaf scorch.

Generally little trouble was experienced from disease, but during August and September wet weather resulted

export, two cases to be judged in Sydney at the Royal National Show, and the other two cases sent to London, to be judged there. The points scored in London and Sydney are added.

PAPAWS.

Papaws were introduced into Queensland more than 60 years ago, and are now grown very extensively. At a meeting of the Queensland Acclimatisation Society, as reported in "The Queenslander" of May 18, 1872, some very fine "Papaw Apples" were shown on the table, of which the following description was given:—"Carica papaya, grown at Bowen Park, from seed sent to the society by the Governor of Barbadoes. The variety is distinct from that common to the islands of the South Pacific. The flowers are yellow, and the fruit much sweeter and more palatable, with less of the peculiar musk-like flavor of the common kinds. The plants from which the fruit was taken are not 18 months old from the seed, and the bearing from 30 to 50 fruits each."

That the fruit has done so well in Queensland is another evidence of the practical pioneering work of the Acclimatisation Society.

NEW ZEALAND.

An Insect Pest of the Raspberry.

THE CATERPILLAR LARVAE of the *Carposina ad-reptella* moth destroys the buds on new canes in many Raspberry plantations during autumn. Specimen canes have been received during the winter months with most of the buds eaten out. The wood, apparently, is not to their taste, as attention is confined entirely to the widely spaced large dormant buds, which are eaten right out, and they are not renewed by the plant. As these buds normally push out and bear the fruit of the coming season, the serious loss of crop is readily imagined. Unable to bear a normal crop of fruit, the energies of the plant will be devoted to sending up a new crop of sucker canes. To save these from another serious attack from this insect pest is a problem the grower has to meet.

Although this insect is a native of the country, commonly attacking Blackberry, we have little information regarding it beyond its identity. It appears to confine its attention to plants of the genus *Rubus*. Hudson states that the adult insect—that is, the moth—appears from September to March. Presumably the moth lays its eggs soon after emerging from the cocoon; the eggs hatch out in a few days, the young caterpillars commence to feed immediately with their usual zest. If that is so, the crops are open to attack during the period of September to March inclusive.

For the first three months of this period the plants are in active growth, and the injury is not so mortal as that inflicted during the autumn, when, the dormant season approaching, growth ceases. Insect pests which feed

on plants during the dormant period are always specially destructive. The damage to the specimen canes sent in during the winter must all have been done since the month of December, when the new canes were practically just appearing through the soil.

This pest is widely distributed, and any attack must not be regarded lightly. It provides another reason why arsenate of lead insecticide should be added to the Bordeaux mixture spray which is applied during the spring on the old canes, and in autumn on the new ones after pruning, to protect them from fungus attacks; $1\frac{1}{2}$ lb. or arsenate of lead in paste form, or $\frac{3}{4}$ lb. if used as a dry powder, should be carefully dissolved in a little water, then diluted further before stirring it into 50 gallons of Bordeaux. To 4 gallons of Bordeaux 2 oz. of paste or 1 oz. of powder will be a sufficient dose if it is well dissolved and then diluted before stirring it into the fungicide. Spraying should be done from the top downwards in a manner that will cover well the buds and angles in which they are placed.

The Tomato Crops.

The Tomato crop will now be growing under glass—in houses for early cropping, in the frames for planting out in the months of October or November, according to local climatic conditions and market demand. A successful Tomato crop depends very much on the way it is managed during the changeable spring weather. During the summer, when the weather is warmer and the plants well established, they require comparatively little attention if plenty of air is then admitted to the house in which they are growing. Any mistakes in watering or ventilation now, however, quickly do damage that is almost irreparable. While stunting plants by chilling them should be avoided, it is almost as bad to grow coarse, sappy plants by keeping them too warm and moist. Thrifty growth, plenty of blossom, and a rather dry, buoyant atmosphere are what should be looked for at the present time, where this crop is growing under glass.

For young plants now growing in frames for planting out later the period is also critical. Sturdy, clean plants may be grown now by giving tepid water sparingly and airing the plants promptly in warm, sunny weather. Damping-off disease and crown-canker are the commonest penalties for mismanagement at the present time. The worst feature in these attacks is that many of the affected plants are not noticed until they have been planted out in the field some time and the disease has made some progress. Replacements have to be made, and an uneven crop is one of the results.

Land on which the Tomato crop is to be grown outside should be ploughed as soon as the previous crop is harvested. A good application of bone-dust before ploughing and a dressing of lime harrowed in afterwards is suitable treatment in many instances.

Other Half-Hardy Fruits.

Egg-plants and Chillies are other half-hardy fruits of this class which are becoming popular, and may now be sown for planting out later. Melons, cucumbers, and even marrow plants may be raised under glass now in pots for planting out in a rich, light, moist soil. An early crop of small marrows is a choice crop that is usually in good demand.

Vegetable Crops.

During the changeable weather usually experienced at this season it is important to take immediate advantage of the drier intervals to hoe growing crops recently estab-

FRUIT TREES

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We have excellent stocks of all classes of

CITRUS and DECIDUOUS FRUIT TREES

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lished, also fallow land that has to be cleaned in preparation for another crop. Such periods are also valuable opportunities for sowing seeds. A small hand-drill does the work expeditiously and well. It should be carefully adjusted to sow the seed thinly, so that little or no thinning has to be done afterwards, a laborious operation that greatly increases costs. On heavy land especially, great care is needed to work it only when it is dry, and in some seasons these opportunities are so rare as to delay the work seriously; but nothing is gained by breaking this important rule.

Plant now cauliflower, cabbage, and main-crop potatoes, and sow main-crop carrots, beet, peas, spinach, white turnips, and salads. It is usually advisable to group the early-maturing crops, so that they may be cleared in time for planting the land with the important winter crops during the months of December and January. In preparation for this planting, leeks and celery seed should be sown towards the end of the month. For such half-hardy crops as French and runner beans, marrows and pumpkins, which are sown outside in the months of October and November, the preparation of the land should be undertaken as soon as it is available.

IMPORTS INTO NEW ZEALAND.

During the month of May, 1932, the following fruits were imported into New Zealand—Canned 52,655 doz., value £10,248; dried fruits, Apples and Apricots 110,500

lbs., value £2,896; currants 714,582 lbs., value £19,531; Dates 229,700 lbs., value £1,479; Figs (nil); Prunes 114,907 lbs., value £1,478; Raisins 2,883,338 lbs., value £84,663; other dried fruits 104,153 lbs., value £3,014.

Fresh fruit: Apples (nil); Bananas 1,215,768 lbs., value £5,074; Oranges and Lemons 441,610 lbs., value £5,538; other fruits 152,984 lbs., value £1,433.

For the five months ended May, 1932, the following were imported, the figures for the corresponding five months of the previous year being shown in brackets.

Canned 188,923 doz., value £36,459 (161,400 doz., value £37,416); Dried Fruits: Apples and Apricots, 485,535 lbs., value £13,111 (288,299 lbs., value £8,410); Currants 894,688 lbs., value £24,639 (514,207 lbs., value £12,527); Dates 1,813,000 lbs., value £10,973 (1,843,451 lbs., value £13,516); Figs 44,419 lbs., value £632 (23,945 lbs., value £275); Prunes 498,310 lbs., value £6,032 (803,611 lbs., value £8,918); Raisins 4,702,413 lbs., value £130,157 (3,115,590 lbs., value £59,129); other dried fruits 147,870 lbs., value £4,144 (93,305 lbs., value £2,779).

Fresh Fruit: Apples 7,880 lbs., value £58 (40 lbs., value £1); Bananas 10,249,408 lbs., value £43,068 (5,287,652 lbs., value £39,649); Oranges and Lemons 3,087,795 lbs., value £38,584 (3,380,752 lbs., value £40,680); other fruits 906,351 lbs., value £8,841 (816,596 lbs., value £11,699).

SUN-SCALD ON APPLES.

SEVERE SUN-SCALD ON APPLES occurred throughout the orchards in Hawke's Bay, N.Z., during a period of high temperatures and still air on January 23 and 24 this year. During this period many heavily-laden branches fell down suddenly where unsupported, allowing the hitherto shaded surfaces of fruits to become suddenly exposed to the sun. A noticeable feature of damage was the increase in severity on those horizontal branches nearer the ground, where the movement of the air was less, whereas higher in the trees and on uprights the damage was hardly appreciable. The damage was more general, and more severe in character in very sheltered situations, and decrease on trees which were more in the open.

It appears that where there is air movement, even though moderate, sun-scauld does not occur. Trees which were adequately braced and had fruiting arms supported suffered but slightly in comparison with others not protected in this way.

The bracing of fruit trees and giving additional support to heavily-laden branches is indicated as a method of minimising fruit losses through sun-scauld. The practice in itself is very desirable, as it provides protection against breakages and makes for the easier working of the orchard where large trees are involved. It becomes even more desirable when, by this practice, protection against sun-scauld may be secured.—N. J. Adamson, Orchard Instructor, Hastings, in "N.Z. Journal of Agriculture."

Classified Advertisements.

Wanted to Buy, about 400 W.B.C. Trees, well grown. Lowest price for cash. Greenwood, Merrigum.

WANTED.—One-way Disc. Must be in good order. Prices and particulars to W. P. Hutchinson, Somerville, Vic.



GOODMAN'S

Praised by Leading Fruitgrower

The following is an extract from a letter dated July 1st, 1932, received by Goodman's from a leading Fruitgrower:—

"We got the bundle of 500 trees out yesterday. They are a splendid lot as your 'trees' always are, and herewith have 'much pleasure to remit cheque.
"The way you pack stands alone, nothing 'coming on to our station can approach 'it in efficiency—the trees could stand a 'long delay and then be none the worse 'for it."

Goodman's Fruit Trees—backed by over 42 years' reputation—are unexcelled for Quality. Exceptionally fine stocks are available in APRICOTS, PEARS, APPLES, PLUMS, PEACHES, QUINCES, NECTARINES, ETC., ETC. Well-grown trees, true to name, free from insect pests, packed and despatched by experts to any part of the World.

ORDER NOW

Particulars gladly supplied.

C. J. GOODMAN, Picnic Point Nurseries, BAIRNSDALE, Vic.

ADVERTISING LEVY AND OTTAWA.

The Editor, "Fruit World."

Sir,—It would seem from your issue of July 1, that Mr. Parnham's partisanship is clouding his reasoning. He has attended no meeting of the Council, and only some of the V.F.M.A. for brief periods. He knows little of what transpired, but he knows I resigned because I believe the decisions of the Committees of the Council and the V.F.M.A. to appropriate for other purposes the levy collected for overseas advertising are wrong morally, legally, and constitutionally. With others, I questioned various irregularities, subsequently admitted by those responsible, but I do not know why he mixes my name with the criticisms of Mr. Mills' selection, which is a matter for the whole industry.

It was adjudged wrong to use this levy when it was suggested to send a delegation to U.K., and each State was asked to contribute its voluntary quota, and the same view held when it was later suggested to use the fund for thrips research. As it was said, if the levy collected in Australia is used for purposes other than advertising, the effect on overseas voluntary contributors must be considered, and no objection could be offered if they also used their levy for other purposes. Nothing has happened to alter the position. The mere passing of resolutions by committees does not make valid or constitutional that which is invalid and unconstitutional.

When on April 29 Mr. Mills spoke of using the fund to send the delegate to Ottawa, I indicated why this was improper, and on May 6 wrote the Secretary of the Council that, as legal opinion doubted the propriety of using the levy for any purpose other than advertising, I could not agree to any deviation. On the 14th, I asked for written confirmation of his statement of the 10th that the Crown Law Department and Department for Commerce

had advised that the Council had power to use the levy to send a delegate to Ottawa. He replied that he had had no correspondence with either Department, but that a senior officer had called to see the minutes and constitution, and was later 'phoned that the Crown Law Department was satisfied the Executive had such power. It was later intimated this was the personal view of an officer.

As proxy for South Australia, on May 25, I was instructed not to support or vote for any nomination involving any expenditure out of the advertising fund, because it was doubted the outlay was warranted, and because they would not permit money collected for advertising to be used until the legal position was undeniably clear, and even then would object on the score of economy and unconfirmed validity of the motion carried by Conference at which South Australian delegates attended.

To ascertain my position, I saw a leading firm of legal advisers, who gave it as their definite opinion that the Council could not apply the levy for any purpose other than advertising, and I advised the Committees of the Council and V.F.M.A. accordingly.

Later the press published a letter of the Victorian Cool Stores' Association to the Minister, complaining that the levy had been imposed without their members having been consulted, and objecting to it being used to send a shipping agent to Ottawa, especially as the diversion could not be justified in law. Further letters of disapproval appeared in the press, whilst the Tasmanian Advisory Board also dissociated itself from the nomination of the Council.

In view of these objections, and remembering the Thrips League trouble, also the Tasmanian threat of legal action if the advertising fund were used for a delegation to U.K., I again saw my advisers prior to the V.F.M.A. meeting of June 3. They advised that the Department of Commerce, in their letter of May 27, had not given or

Empire Preference

—is now more than a political catch-phrase. It is business in £ s. d., and Australia can build trade on the markets of the Empire that will bring in the tide of prosperity. We must not expect the full benefits of tariff preference unless we meet the requirements of the Empire buyer and deliver the right goods packed in the right way.

Each year upwards of twenty million packages of Australian products are wire-strapped for safe transport with Gerrard Wire-seal Strapping. The small additional cost gives a guarantee of safe transport and buyer-satisfaction.

Our special packing service men are at your disposal without cost or obligation.

Gerrard Wire Tying Machines Co
PTY. LTD.

119-125 HAWKE STREET, WEST MELBOURNE.



London, Melbourne, Sydney
Brisbane, Adelaide, Perth,
Launceston, Hobart
Wellington

attempted to give, the Council any authority to use the inspection fee to send a delegate to Ottawa, and that whilst the Department confirmed that other industries used their levies for other purposes than advertising, this practice could not affect the proposed action of the Executive of the Council as expressed in a resolution of May 25, because the inspection fee was collected (as set out in the Department's letter of September 18, 1931), "for the purpose of creating a fund to be used for the advertising of Apples and Pears in Great Britain." They added that if the Council received any of such funds, it could only use it for the purpose specified, unless the Minister otherwise directed. I was advised that if the intention of the resolution was persisted in to allocate part of the fund for expenses to Ottawa (unless with the sanction of the Minister) I should definitely dissociate myself from such action.

I read this letter to the V.F.M.A. and offered £50 to a voluntary fund, but a majority decided that the levy can be used for purposes other than advertising. By their constitutions, the V.F.M.A. and Council can do as they like with the voluntary funds raised from their members, but they have no power to deal as they wish with the compulsory levy raised by the Department, even from their own members, much less from non-members, and neither Mr. Parnham nor the Committee of the V.F.M.A. can lawfully direct its representatives on the Council to dispose of such funds as they please, except with the consent of all contributors, or the Minister's sanction.

Tasmania is now asking the Minister for a return of portion of their levy, showing his sanction is required, otherwise they would merely ask the Council, but if they must ask the Minister, how can the V.F.M.A. or members of the Council dispose of the levy as they elect? Where will it all lead?

Mr. Parnham states the procedure adopted is exactly in line with that of other industries receiving funds in this way. Can he name those industries which deliberately use funds which are collected and earmarked for a particular purpose for an entirely different purpose? I challenge him to produce any letter from the Minister or Department definitely stating that the funds collected for advertising on Apples and Pears can be used for any other purposes.

Mr. Parnham apparently bows to majorities, right or wrong, but I do what I consider right and proper, irrespective of majorities. Moreover, whilst he escaped all liability, I was, as part trustee of the fund, accountable to all Australian contributors, nor did I forget that, as members of the Council, we do not hold our position by election of the whole of the contributors, but merely by nomination from organisations neither fully representa-

tive nor empowered to deal as they please with the levy, which is particularly the case with the V.F.M.A.

As for my alleged refusal to meet some Victorian shippers, Mr. Parnham knows why I did not attend, and his inference is unpardonable. I never attend private meetings, but, unlike Mr. Parnham, I have attended all properly constituted meetings. When I withdrew from the Presidency, it was only on the pressing insistence of shippers that I agreed to represent them, but on the distinct understanding that I retained absolute freedom of speech and action, as I recognise no sectional interest, but the industry as a whole.

The present inspection fee levied in Australia is a clear substitution for the higher advertising formerly collected overseas, and used exclusively for advertising. Its administration by the Council can even be justified, although its composition and representation is open to challenge, but when the original intention is departed from, the objections of dissenters are fully justified, and the franchise of the Council needs revision. It may be right to have a levy for administration and other expenses in addition to advertising, but as the decision rests with growers (unless shippers find the money) their consent must first be obtained, and it will be necessary to model a fresh constitution providing for a franchise which will enable all, and only, those who contribute, to elect their representatives, thus creating a responsible elected body truly representing those who pay and are able to speak and act in the name of those who elect them.

Mr. Parnham's invitation that "I carry on with my useful work" is amusing, as it apparently means only so long as I carry out his wishes, but his letter shows the wisdom of my remaining untrammelled, and how preferable it is to be the critic when, and if ever, he does the work.

Yours faithfully, H. G. COLOMBIE.

BAVE-U Power Sprayer

Read in last month's issue (page 387) why the BAVE-U leads for Efficiency and Economy.

Let us Demonstrate in your own Orchard

RUSSELL & CO., Engineers
BOX HILL, E.11, VICTORIA.

FRUIT TREES

LARGE STOCKS

Of All Kinds of Young Citrus and Summer Fruit Trees
Are Available from the Best of Buds, Personally Selected.

Having a large Orchard of our own in the Orange District, we are in a position to select buds from trees we are certain are the best for production.

OUR SUPPLIES ARE WHOLESALE AND RETAIL.

Our Roses are of the Best and Choicest Varieties,
Produced from the Most Thriving and Healthiest of Stock.

All Orders Carefully and Promptly Despatched, and All Trees and Roses Absolutely Guaranteed.

F. E. SPURWAY & SONS,

BRUSH FARM
NURSERY

Marsden Road, Ermington, N.S.W.

Phone Ryde 65.

ROSES

Victorian News and Notes.

VICTORIAN FRUIT CROPS.

THE monthly seasonal report by the Victorian Department of Agriculture, states as follows:—

The estimates for the Orange crop indicate 75 per cent to 85 per cent. of a normal crop. Unfortunately frosts have been responsible for a good deal of damage to the Lemon crop in some of the districts along the Murray.

Reports from all districts indicate that there is every promise of a good setting of deciduous fruit of all kinds next season, therefore, we trust that normal conditions will prevail during the blossoming period.

Growers in districts where the San Jose scale had spread during last season have been made fully aware of the necessity of undertaking an intensive campaign for the control of this pest. Spraying has been retarded in the Goulburn Valley districts owing to the boggy conditions of the land, but all infested orchards will receive a thorough spraying before the end of the dormant season. Lime sulphur sprays are being largely used as a control measure. Petroleum oil emulsions are also in use, and a combination of winter white oil and lime sulphur promise well as an effective control.

The final figures for fresh fruit exported to the United Kingdom and the Continental markets are:—Apples, 132,030 cases, Pears 146,636 packages: Total 278,666 packages.

Viticulture.

Official statistics are not yet available, but an ap-

proximate estimate of the wine yield for the whole State, including wine for distillation, is 1,350,000 gallons.

In the irrigated areas, the dried Grape crop was harvested in spite of unusual climatic difficulties, the surmounting of which has entailed considerable extra work. Much ingenuity has been shown in the practical application of dehydration, often with home-made appliances, to complete the drying—an innovation in Northern Victoria, where the sun's heat is usually ample.

Ordinary routine work has been delayed in consequence, and pruning and ploughing are less advanced than usual. Green manure operations have been hampered by the "mouse pest"—in some cases the seed was eaten in the ground.

Cover crops are backward for this time of year, and few will be ready for that early ploughing-in that is so desirable.

FRUIT TREES IN GOULBURN VALLEY.

Heavy Mortality Because of "Sour Sap."

Recommendations for Improvement.

AS A NUMBER OF TREES in the Shepparton district had mysteriously died last spring a Committee was formed to investigate the cause. This Committee consisted of two representatives each of the Water Commission and the Department of Agriculture, and in its report to the Minister of Agriculture it stated

A FEW REPLACE PARTS AND YOUR OLD OLIVER IS AS GOOD AS NEW.

Standard the World Over.

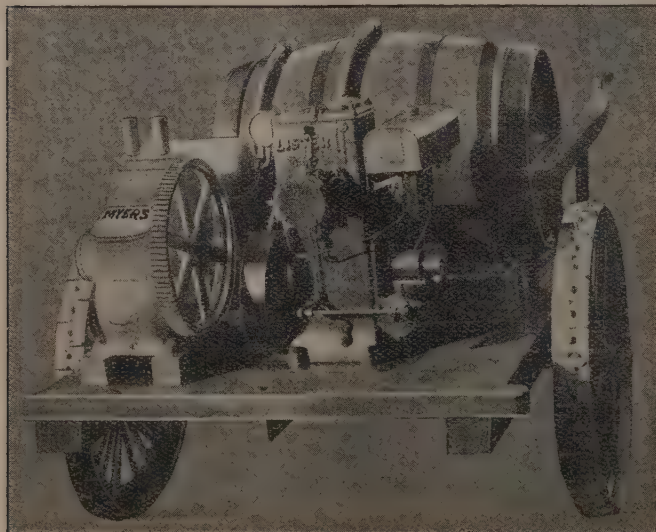
OLIVER PLOUGHS

Ample Stocks of Parts at Competitive Prices

Victorian Agents—MALCOLM MOORE LTD., Williamstown Rd., Port Melbourne

Telephone M 1178, 2 lines

Telegrams: "MALMOOR" Melbourne



IN A CLASS OF ITS OWN

Lister-Myers Spray Outfit

Outfit comprises the celebrated 2 h.p. "Lister" Engine direct-coupled to a "Myers" Self-Oiling Pump.

English Oak Cask, Steel Non-skidding Wheels on Transport.

Suitable for Guns or Hoses.

Free Estimates given for Stationary Spraying Plants.

A. G. WEBSTER & SONS LTD.
HOBART

that the loss of the trees was due to what is known as "sour sap," which was caused by the waterlogging of the soil. The investigation disclosed that 28,000 trees, equal to 14 per cent. of the district's canning Peach trees, or 3 per cent. of the total orchard area, was affected. But 51 blocks of a total of 270 in the area investigated were not affected. There was a loss of more than 500 trees in thirteen orchards.

Several recommendations were made by the Committee in order to prevent a recurrence of the loss.

It suggested there was need for improvements in the irrigation technique of many growers. A soil augur might be used to assist irrigators in ascertaining the moisture content of the soil. Regular soil sampling was important. Runs should not exceed three to four chains on light soils, and seven to eight chains on the heavier soils. Special measures should be taken each year to ascertain whether irrigation was necessary during March, as water at that time was of no use in increasing the size of the fruit, where soil moisture conditions were already favorable. During a wet winter surface drainage was imperative, and each block should be carefully furrowed. Water should not be permitted to lie about.

To assist in removing surplus water the growth of a green winter crop was recommended.

Provided the advice given by the Committee was acted upon, the areas affected might again be planted with Peaches, but where topographical conditions were conducive to excessive water lying about, Plums or Pears might be planted. It was desirable to carry out a soil survey of the district because of the great variability of the soil.

The Committee further said there was need for a research station in the Goulburn Valley to deal with many problems which were peculiar to that district and the canning fruit industry.

East Doncaster Hall.—A new public hall was opened at East Doncaster by Mr. W. H. Everard, M.L.A., on June 2. Mr. Everard was welcomed by Cr. J. J. Tully, who congratulated those connected with the raising of the funds on the erection of such a splendid hall. Mr. A. Zerbe had generously sold the land at a very reasonable price.

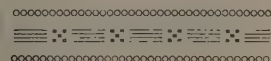
Mrs. Everard turned the key of the door and company entered. A vote of thanks was tendered to Mr. Everard at the instance of Messrs. A. Zerbe, senr., and Ireland.



Demonstration of power spraying at the Harcourt Field Day.

The Marino outfit is seen in operation.

—Illustration by courtesy "The Weekly Times."



L. P. ROSEN & SON

Fernhill Nurseries, Pennant Hills Rd., Carlingford, N.S.W.

Are Now Booking Orders For:—

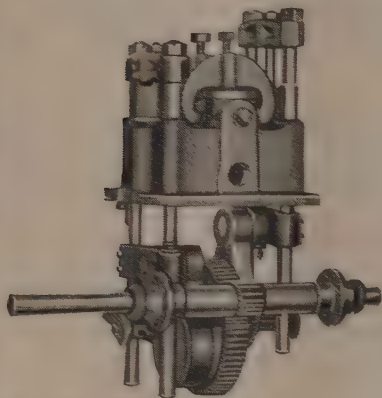
All Kinds of Fruit Trees, including Citrus, of which 150,000 are available, on Lemon, Orange and Trifoliata Stocks, in first-class, extra well-grown stuff, budded from selected orchards of best bearing types.

We can also offer some 25,000 Valencia, 10,000 Washington, 2,000 Eureka, 2,000 Marsh, and 2,000 Emperor, grown from buds supplied by the N.S.W. Bud Selection Society. Quantity Prices Freely on Application.

Catalogues post free.

SPECIALITIES:—Fruit Trees, Rose Plants andKunde Secateurs.

Some Important Features of the Famous "Buzacott" Figure "469" Portable Orchard Sprayer The Pump—The Engine



The Fig. 450 Spray-Pump.

On the left is shown the Figure "450" Auto-lubricating SPRAY PUMP, A MASTERPIECE OF ENGINEERING SKILL AND ACHIEVEMENT.

Remember all working parts are totally enclosed and automatically lubricated.

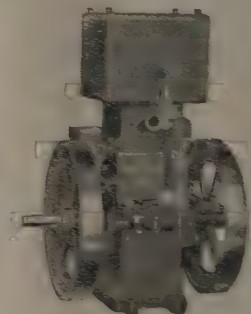
The illustration depicts the Pump with sump and cover removed to show robust construction.

Spray liquor cannot possibly reach any section of the mechanism, even in the event of a Plunger bucket bursting. The Pump is ABSOLUTELY WEATHER-PROOF.

A Sight to Please the Eye

is this extremely simple and compact "BUZACOTT" $1\frac{1}{2}$ 2½ h.p. totally enclosed vertical engine.

No oil pumps here to go wrong just when you are in the middle of spraying, the entire Engine being perfectly lubricated by splash.



"The Buzacott" Fig. 469 Portable Orchard Sprayer.

Growers everywhere are seeking further particulars of this unusual Spray Cart. Without obligation, you too can obtain our illustrated and descriptive literature.

Write your Name and Address Here, and Post the Advertisement To-day.

Mr.

Address

BUZACOTT & CO. LTD., Sydney - Lismore - Brisbane

Agents for Victoria:

CAMERON, SUTHERLAND & SEWARD Pty. Ltd.,

South Melbourne. Phone—M 2251

Agents for Tasmania:

TASMANIAN ORCHARDISTS' PRODUCERS' CO-OP. CO. LTD., HOBART

TOMATO CONSIGNMENTS.

The first consignment of Tomatoes from Western Australia arrived at Melbourne early in July, but consisted of only a few packages. A consignment of about 2,000 packages, however, arrived later in the month, and it is expected that large consignments of Tomatoes will be put on the Melbourne markets by West Australian growers. The Tomato crops around Geraldton ripened four or five weeks earlier than usual.

Two representatives of the various Tomato growers' organisations have arrived in Melbourne to supervise sales and advise growers.

It is expected that the season will finish earlier than it did last year, when supplies were kept up until November.

The quality of the initial consignment has been of an excellent standard, and the grading of the produce a distinct improvement on previous seasons.

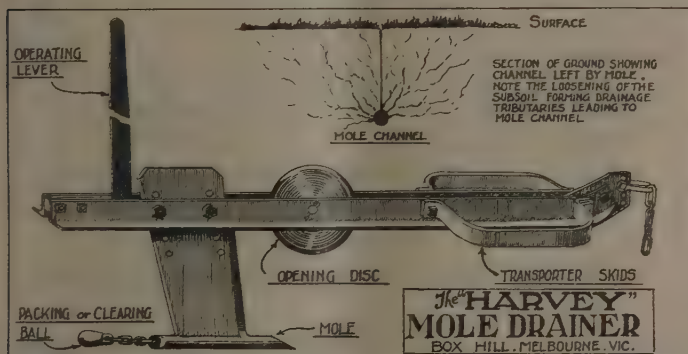
Good supplies of Tomatoes have been received from Bowen, in Northern Queensland, as well as from W.A.

The first of the season's Adelaide Tomatoes were received on July 21, and this glasshouse grown fruit is probably the best Tomato marketed during the winter months. The fruit arrived in splendid order.

An Inexpensive Drainage System

WHICH SAVES

Your Land from Becoming Waterlogged.



The "Harvey" Mole Drainer.

The "HARVEY" MOLE DRAINER

**Specially Manufactured
for Making Effective
Subterranean Drainage
Channels.**

Saves Trench Digging.
Saves Agricultural Pipes.
Saves Your Land from Souring and
Growing Rushes.
Saves Your Fruit Trees.
Conserves Moisture.

An Efficient and Inexpensive Drainage System in Clay Sub-soil

Write for Particulars to—

D. HARVEY, IMPLEMENT MANUFACTURER, **Box Hill, Melb., Vic.**
Agents All States,

Fruit Trees Fruit Trees

BOOK NOW

BRUNNING Quality! Unsurpassed.

BRUNNING Quantity! Large Stock

BRUNNING Prices! Amazingly Reasonable

Free Catalogs illustrated. Encyclopaedia of information. Every variety grown and its description. Write at once to

John Brunning & Sons

Somerville Nurseries - Somerville - Victoria - Australia

Orchards, 200 acres.

Nurseries, 25 acres.

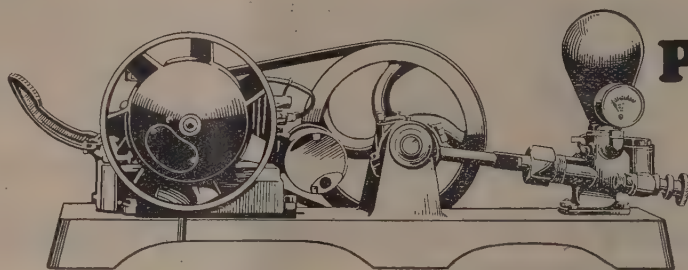
Properties 650 acres (freehold).

Private Cool Stores, 11,960 Bushel Capacity.

Established 1866.

Overseas use Bentley's Complete Phrase Code.

Fruit Growers! Tobacco Growers! Tomato Growers!



The Marino Power Spray Plant

Will discharge 80 Gals. per hour
through 2 hoses, at pressure of 200 lb.
per square inch.
Easily transported—on footboard of
car or on sled.

One kick starts it.
Low initial cost.
Low running and upkeep.

Easily adapted for jetting, pumping, electric lighting, lime washing, etc. Prices for these extra fittings on application.

NOTE THE LOW PRICE — ONLY £58 (Including Fed. Sales Tax)

Freight Paid Victorian Railway Stations.

Complete with 30ft. of delivery hose, spray rod (7ft. 6in.) in 2 sections, suction stand
agitating jet, spraying nozzle, with numerous discs, and shut off valve.

"SAVE MONEY WITH A MARINO."

CUT THIS OUT AND POST NOW.

**SOLE VICTORIAN
AGENTS:**

**DISTRICT AGENTS
WANTED.**

Henry Berry & Co. Pty. Ltd.

568-580 Collins Street - - Melbourne

HENRY BERRY & CO. PTY. LTD., 568 Collins Street, Melb.
Please forward me specifications and all particulars of the
Marino Power Spray Plant.

NAME.....

ADDRESS.....

Orchardists!

Plant Reliable Fruit Trees

Our Nurseries are situated in Ermington and Rydalmere, N.S.W., where
we carry large stocks of all leading commercial varieties of Citrus and
Deciduous Fruit Trees.

We grow also yearly, upwards of 50,000 Rose Plants, both new and old, of
Bush and Climbing varieties.

You should try us for your next order. Large or small orders receive our
personal attention.

**Quality Trees and Roses, efficient packing and prompt dispatch of all
orders.**

Catalogue Free on Application to:—

SWANE BROTHERS

Enterprise Nursery, Ermington, New South Wales, Australia

Telephone: Ryde 413

SULPHATE OF AMMONIA

REDUCTION OF PRICE

As from the 1st July, the price of Sulphate of Ammonia was reduced to the lowest level on record in Australia, and £2/8/6 per ton below the ruling price this time last year.

Price now £11/8/6 per ton,
less 2½% for cash (in ton lots and over).

Higher rates for cwt. orders.

SULPHATE OF AMMONIA remains the cheapest and most profitable nitrogen fertiliser that can be used—either “straight,” in SUPER and AMMONIA mixtures, or in complete manures.

Ask your Fertiliser Agent to order for you at the above low price, and reduce crop costs by increasing acre yields.

Write for Fertiliser Recommendations to:

NITROGEN FERTILISERS PTY. LTD.

360 Collins Street, Melbourne, C.1.

REPORT ON SYDNEY MARKET FOR THE MONTH OF JULY, 1932.

Messrs. Macdermott and Sheedy, City Fruit Markets, Sydney, report as follows, under date July 27:—

Apples.—Demand during the past month was quiet and with the exception of really choice fruit most varieties were slow of sale. Supplies which in a normal year would have been considered light, were more than sufficient to meet enquiry. Supplies of local Apples were only negligible and in consequence good Grannie Smiths and Delicious brought high values as did also Rome Beauties.

Arrivals have fallen off during the past week or two, and indications are that the market will be firmer from now on although it is not expected that values will improve very much for another week or two.

Pears were in light supply, and values remain firm for all varieties.

Citrus Fruit.—Ample supplies of Navel Oranges were available, but enquiry was only fair, and in consequence prices were fairly low right throughout the month.

The demand has improved during the past week, and prices moved up a little and should remain firm. With the advent of warmer weather, values for all citrus can be expected to increase.

Some fair shipments were sent overseas during the month to Canada and to the East, and these undoubtedly helped to hold up prices on the Sydney market.

Common Oranges were in very poor demand and prices were low.

Mandarins were badly hit by frosts, and it is estimated that 50 per cent. of the crop was destroyed. Unfortunately this season, Mandarins from every district are small, and while large fruit can be sold at payable prices small fruit is not wanted and can only be moved at low rates.

Lemons were also affected by frosts particularly on the M.I.A., where it is reported that most of the mature fruit on the trees was destroyed.

There is a fair crop on the coast and in the metropolitan district, but there will probably be a shortage of good Lemons later in the season. The demand has been very poor during the month, but can be expected to improve in the next few weeks.

Passion Fruit was in short supply in the early part of the month, when high prices were ruling. Arrivals during the past fortnight considerably increased, and in consequence prices fell sharply. The vines in every district carried a heavy winter crop and despite the damage by frosts ample supplies should be available for some time yet.

AUSTRALIAN FRUIT IN ENGLAND.

Mr. A. E. Schuster.

Retailers Complain of Bruising: "Counts" Preferred to "Sizes."

An interesting report regarding Australian fruit in England has been received by the Department of Agriculture, Melbourne, from Mr. S. G. Platts, of Balwyn, Vic., who recently visited the Old Country.

Mr. Platts states that retailers strongly complain of fruit being bruised. On examination, he found their complaints justified. At a retail store at Hove, the only case of Australian fruit in good condition was in a jarrah case. The others all had the top layers bruised. Yet American cases, with a considerable bulge, revealed very little bruising. Further, American Apples showed the number of Apples in the case, thus enabling the retailer to know the price he could pay to sell retail by the dozen. Most Australian cases showed the size of the fruit, which was of no interest. He watched the "Orsova" unloading and there was no rough handling.

About two years ago, Mr. A. E. Schuster purchased an empty store in Quay-street, City Markets, Sydney, and a few weeks later commenced business as a licensed farm produce agent. Within a comparatively short period he created a good steady business in most of the fruit lines, and later found it necessary to acquire more space. Mr. Schuster is now getting consignments from some of the leading districts in Victoria, N.S.W., Tasmania and Queensland, together with large shipments of Bananas from the Pacific Islands.

Mr. A. E. Schuster is not new to the trade, having held responsible positions for about 14 years in the Brisbane Fruit Markets, where he effected some large sales in the fruit trade. He later entered into a five-year partnership with Mr. A. J. Carter, when further big business was transacted in all States.

Diner: "Here, waitress, take this chicken away; it's as tough as a paving-stone."

Waitress: "Maybe it's a Plymouth Rock, sir."

VISITOR FROM SOUTH AUSTRALIA.

Mr. J. Turner, fruitgrower, of Blackwood, South Australia, called at the "Fruit World" Office early in July. Mr. Turner inspected orchards and cool stores on the Mornington Peninsula and other places. The business is carried on as J. Turner & Sons. They have 70 acres under cultivation, growing Packhams and Williams Pears, Apples and stone fruits, also eight acres of vines for the production of wine grapes. A fair crop of fruit was harvested last season.

For cultivation, a caterpillar tractor and double discs are used. It is necessary to break down the green crop which is subsequently ploughed under. The tractor has been found necessary as without same a team of six horses would be necessary, and this would be impossible for orchard work. Furthermore, the tractor is necessary for sub-soiling.

Mr. Turner directed attention to the high price of superphosphate, and is firmly convinced that the price should be reduced, not only because of wage reductions, in that industry, but also because of cheaper handling at wharves.

The South Australian Fruitgrowers' and Market Gardeners' Association is doing good work, states Mr. Turner. The Tomato and celery growers have greatly benefited and valuable work is also being done for other sections of the fruit industry.



Potash payson fruit

Potash is an indispensable constituent of all fertilisers for fruit trees, and the best form in which to apply it is



Use 2 cwts. per acre with other artificials (Super, Nitrogen, etc.) and watch the

Increase in yield
Improvement in quality,
size and colour of fruit
and in the health and
vigour of your trees.

For prices apply to your
manure merchant.

Insist on "Sun Brand."

Write for further particulars to:—
PACIFIC POTASH LTD.,
56 Young Street - - Sydney

A VISIT TO QUEENSLAND.

Mr. F. Cave, of Messrs. F. Cave & Co. Pty. Ltd., fruit merchants and exporters, Melbourne, who visited Queensland during July, reports favorably on the prospects of the fruit industry.

It will be remembered that Mr. C. G. Parnell, who was recently the representative of the Committee of Direction of Fruit Marketing in Melbourne, has joined Messrs. F. Cave & Co.'s staff.

Mr. Cave reports having visited all the principal Banana and Pineapple growing centres on the North Coast line as far as Gympie, and also on the Mary Valley line. He found that the proverbial hospitality of the Queenslanders was by no means overrated, and was pleased with the feeling of optimism amongst the growers and their confidence in the future of the industry. The quality of the fruit is generally good, and they are free from serious diseases. It is pleasing to note the activity of the Department of Agriculture in assisting the growers in their pest control measures. Mr. Cave noticed that the plantations have recovered very quickly from the bad effects of the long drought.

The object of Mr. Cave's visit was to obtain supplies of Queensland fruits, including Bananas, Pineapples, Papaws, Custard Apples, Tomatoes, also beans, etc., for marketing through the recently constituted section of their business.

Their recently constructed Banana ripening rooms reported to be completely successful. The firm can handle 400 cases of Bananas per week through its ripening rooms. Mr. Cave expresses confidence in the Melbourne market for the sale of Pineapples.

WHOLESALE FRUIT MARKET TENNIS TOURNAMENT.

A tennis tournament was recently held by the Wholesale Fruit Market. The innovation was so successful that it is the intention of the Committee to run an annual tournament. All the events were well contested, and the semi-finals and finals were close and exciting. Cups were donated by the following:—Mixed Doubles Handicap (Mr. W. A. Watkins), Men's Doubles Handicap (Messrs. H. and S. Frankel), Singles Championship (Mr. D. G. Wills).

The tournament was supported by all the firms in the market, and good attendances witnessed the final matches.

Men's Singles Championship.—Semi-finals: V. Yon d. Leo Pullar, 6/5, 6/4; C. McRostie d. R. G. Bartram, 2/6, 6/1, 6/4. Final: V. Yon d. C. McRostie, 4/6, 6/0, 6/3.

Men's Doubles Handicap.—Semi-finals: V. Yon-Kee d. Whitelaw-Percival, 6/4, 6/5; Pullar-Pullar d. Spicer-Allen, 6/0, 6/2. Final: L. Pullar-J. Pullar d. V. Yon-L. Kee, 6/3, 4/6, 6/4.

Mixed Doubles Handicap.—Semi-finals: Whitelaw-Miss M. Kearnan d. L. Pullar-Miss Cadenzi, 6/5, 4/6, 7/5; G. Stewart-Mrs. Stewart d. Blair-Miss Quaife, 4/6, 6/5, 8/6. Final: Whitelaw-Miss Kearnan d. Stewart-Mrs. Stewart, 6/3, 4/6, 6/4.

HEAR HIM PANTING.

Sammy lamented on his tight trousers. "These new pants are too tight," he said to mother. "They're tighter than my skin."

"Nonsense," was her reply, "you're absurd; nothing could be tighter than your skin."

"Well," argued Sammy, "I can sit down in my skin, but I can't in these pants."

NOBELIUS FRUIT TREES

Packed and Despatched to all parts of the World

We have splendid stocks of clean healthy fruit trees and shall be pleased to receive your enquiries.

APPLES

YEARLINGS AND TWO-YEAR-OLD TREES IN ALL THE BEST COMMERCIAL VARIETIES.

PEACHES

DESSERT AND CANNING VARIETIES.

PEARS

PACKHAM'S TRIUMPH, BARTLETTS, JOSEPHINES, AND OTHERS.

Yearling and two-year-old plums, also prunes, almonds, apricots, nectarines, persimmons, passion fruit, berry fruits and all classes of citrus fruit.

Before you order elsewhere—procure our catalogue and prices.

We are also large growers of ornamentals, for shade, street, avenue & park plantings.

GEMBROOK NURSERIES

Emerald, Victoria

Phone Ringwood 171

Oversea Orders Receive Prompt Attention

The Fruit Trade

Market Reports and News Items

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

Advertising in this Journal.

Sydney:

NEW SOUTH WALES.

Chilton, F., City Fruit Markets.
Slater, Jas., City Fruit Markets.

Melbourne:

VICTORIA.

Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cave, F., & Co. Pty. Ltd., Wholesale Fruit Market.
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Lister, G., Pty. Ltd., Wholesale Fruit Market.
Lucas, D. S., 132 Franklin Street, Melbourne.
Millis, A., & Sons, Wholesale Fruit Market.
McLean, N. N., Pty. Ltd.
Mumford, J. G., Wholesale Fruit Market.
Pang & Co. Ltd., H. L., Wholesale Fruit Market.
Patrikeos, P. A., Wholesale Fruit Market.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Goon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.
Tong, W. S., Wholesale Fruit Market.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Pty. Ltd., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.
Woolf, G., Wholesale Fruit Market.
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 423 Collins Street, Melbourne.
Young, J. H., & Co. Pty., Wholesale Fruit Market.

Brisbane:

QUEENSLAND.

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Comino Bros. Ltd., Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
Whitton, W. J., & Co., Fruit Markets.

Hobart:

TASMANIA.

Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.
E. R. Cottier Pty. Ltd., Temple Place, Macquarie Street
Jones, H., Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Launceston:

Bender & Co. Pty. Ltd., 100 Elizabeth Street.

Dunedin:

NEW ZEALAND.

Co-operative Fruitgrowers of Otago Ltd.

London:

GREAT BRITAIN.

Pask, Cornish and Smart, London.
Margelson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
White & Son Ltd., London Fruit Exchange, Spitalfields, E.1.

Hull:

The Port of Hull, London and N.E. Railway. Rep. Burns.
Philp & Co. Ltd., 7 Bridge Street, Sydney.

Manchester:

The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

Liverpool:

Johnson, T. S., & Co.

Bremen:

GERMANY.

Fruchthandel, Gesellschaft.

Hamburg:

Astheimer, P. H., & Son, Fruchthof.
Gustav Bey, Hamburg.
Int. Fruit Import Gesellschaft.
Lutten, J. H., & Sohn, Hamburg.
Stier, Aug., Fruchthof.
Timm & Gerstenkorn.

Copenhagen:

DENMARK.

International Fruit Import Co.

GREAT BRITAIN.

Half way through the season there was a disastrous fall in prices, many varieties of Apples realising only 5/- per case. During this slump, which lasted for about three weeks Granny Smith maintained 12/- to 15/- per case. After the slump prices for general varieties recovered to 10/- to 12/- per case.

Reports from London indicate that heavy supplies arrived simultaneously (emphasising the need for better co-ordination in the despatch of steamers from Australia). Some of the cargoes were over-ripe and wasty, and there was a considerable amount of bruising due to extra rigid hardwood cases and slack packing.

NEW SOUTH WALES.

Sydney (23/7/32).—Cleo. (Tas.), 4/- to 9/-; Crofton (Tas.), 3/- to 10/-; Democrat (Tas.), 5/- to 10/-; Del. (Loc.), 7/- to 20/-; De. (Tas.), 3/- to 10/-; Five Crown (Tas.), 2/- to 7/-; French Crab (Tas.), 3/- to 7/-; G. Smith (W.A. and Tas.), 5/6 to 11/-; G. Smith (Loc. and Qld.), 6/- to 16/-; Jon. (Tas.), 4/- to 9/6; R. Beauty (S.A. and Tas.), 4/- to 11/-; Scarlet P. (Tas.), 3/- to 8/-; R. Beauty (Loc.), 5/- to 14/-; Sturmer P. (Tas.), 2/6 to 6/6; Yates (W.A.), 6/6 to 9/-; Pears: B. Bosc (Vic. and Tas.), 5/- to 11/-; Josephine (S.A. and Loc.), 7/- to 12/-; Howell (S.A., Vic.), 7/- to 10/-; Keiffer (S.A., Tas.), 5/- to 7/6; Packham's T. (Tas., Loc.), 7/- to 12/-; W. Cole (Vic., Tas.), 7/- to 13/-; W. Nelis (Tas.), 7/- to 12/-; Bananas: Eights and Nines, 15/- to 17/- tropical case, few to 18/-; sevens, 11/- to 14/-; sixes, 8/- to 10/-. Grapefruit, 4/- to 9/- bushel. Lemons: Local, 2/6 to 6/- per gin case; inland, 3/6 to 7/6 per Canadian case. Navels: Local, 3/6 to 5/6 gin case; inland,

4/- to 7/- Canadian case. These prices are for special and standard. Plain fruit is 1/- to 1/6 per case less. Mandarins: Emperor, 2/- to 5/- gin case; Joppas, 3/- to 5/-; Commons, 1/- to 3/-; Seviles, 3/-. Custard Apples, 3/- to 4/6 half case. Pineapples, 6/- to 9/- tropical case. Passionfruit: Local, 3/- to 6/- half case. Papaws, 6/- to 8/- tropical case; colored to 12/-.

Victoria.

Melbourne (30/7/32).—Fruit sales were dull, and prices remained at recent levels. Excepting where otherwise stated the quotations are at per bushel case:—Apples—Eating, Jons. 6/- to 8/-, Del. 8/- to 10/-; cooking, Five Crown 6/- to 8/-, R. Beauty 6/- to 7/-. Oranges—Navel, M.I.A. and Vic., average standards, large (to 84), 4/-; 96-112, 5/-; 126 up, 6/- and occasionally 7/-; good Mildura wrapped standards, 8/- best counts, few to 9/-; selected wrapped S. Aust. standards, 9/-, few to 10/-. Commons—Standard grade, 4/- to 6/-; selected higher. Mandarins—Good standard grade, Emperors and Segelets, best counts 6/-, few to 7/-; Dancays and Beauties and other good reds, 8/- best counts, few 9/-; small (from 350) from 4/-. Vic. Grapefruit, average standard grade, 45-75, 6/-; 32, 5/-, few 7/-; plains, 5/-; good Mildura standards to 8/-, with selected Curlew lines higher. Lemons—Standards to 6/-, few to 7/-; Poormans and Seviles, Vic. standards, best counts to 7/-. Pears—Culinary, 2/6 to 4/-; dessert, Packham, 6/- to 8/-. Bananas—Queensland, green, sixes 11/- to 13/-, sevens 14/- to 15/-, nines and eights 16/- to 18/-, few to 20/-. Pineapples, 6/- to 8/- double case. Passion Fruit—Local, 12/- to 14/-; Queensland, 8/- to 10/- a half-case; N.S.W., 6/- to 8/- half-case. Tomatoes—Queensland, 6/- to 8/- half-case; W.A., 6/- to 8/- half-case; S. Aust., 7/- to 9/- half-case.

Queensland.

Brisbane (28/7/32).—Tas. Apples: Jons., best, 2½ in. to 2¾ in., 9/- to 10/- case; 2½ in., 9/- to 10/- case; 2½ in., 7/- to 8/-; soft and faulty, 5/- to 6/-; S.T.P., 2½ in. to 2¾ in., 6/6 to 8/-; 2½ in. to 2¾ in., 5/- to 6/6; S.P.M., 2½ in. to 2¾ in., 8/- to 9/-; 2½ in. to 2¾ in., 5/6 to 7/- case. Croftons, 2½ in. to 2¾ in., 9/6 to 10/6; 2½ in., 7/- to 8/-; Hoovers, 7/- to 9/-; F.C., 2½ in. to 2¾ in., 8/- to 9/-; 2½ in. to 2¾ in., 5/- to 6/6 case. Vic. Apples: Jons., 8/- to 9/- case. For Vic. Pears of the B.B. class from 8/- to 10/- per case ruled, and Howells sold from 7/- to 9/- case. Oranges, navels, best 5/- to 8/- case; others from 4/-. Queensland Oranges, local offerings, 3/- to 5/-; Mandarins, Gleas, 5/- to 10/-; Emperors, 3/- to 9/-; Scarlets, 4/- to 8/-; Grapefruit, 2/6 to 3/6 half case. Local Lemons, 2/- to 4/-; Limes, 2/- to 3/- case; Papaws, 1/- to 2/6 case. Special local Passion Fruit, 5/- to 7/- case; other grades, 3/- to 4/-; Custard Apples, special 4/-, others 1/6 to 3/- case; smooth-leaf Pines, 2/6 to 4/6 case; Ripleys, 2/6 to 3/- case. Apples: Stanthorpe, G. Smith, 11/- to 13/- case; southern Navel Oranges, 7/- to 8/6 case; southern Lemons, 8/- to 12/- case. Tas. Pears: W.C., 10/- to 13/- case.

West Australia.

Perth (22/7/32).—Apples: Jon., dumps 5/- to 7/6; Dunn's Seedling, 5/- to 8/- (special to 9/-); R. Beauty, 5/- to 8/- (special to 10/-, others from 4/-); Yates, 6/- to 10/- (special to 11/-, others from 5/-); G. Smith, 7/- to 10/6 (special to 11/6); Cleo., 5/- to 8/6; Doherty, 5/- to 7/6 (special to 8/6); Del., 10/- to 11/6 (special to 12/6); Rokewood, 5/- to 8/- (others from 4/-); citrus, Navels, flats 3/- to 6/-, dumps 5/- to 8/6 (special to 10/-); Oranges, plain, flats 2/3 to 3/6, dumps 4/- to 6/-; Lemons, 2/- to 3/9 (special to 5/-, others from 1/6); Mandarins, 3/6 to 7/-; Tomatoes, 5/- to 10/- (special to 11/9, inferior from 2/-).

NEW ZEALAND.

Dunedin (14/7/32).—Messrs. Reilly's Central Produce Mart Ltd., report as follows:—Apples: Jons., 5/-; Del., 4/-, 8/-; Lord Wolseley, Alfristons, choice large cookers, 3/6, 5/-; Sturmers, 5/- to 7/-, Pears: Coles, 6/6, 9/-; W. Nelis 7/-, 8/6. Mandarins: Choice, 14/6. Pines, 18/-, 20/-. Cal. Oranges, 30/-. Sunbeam Navels, 10/-, 12/6. Bananas: Choice ripe 9's, 16/6; green, 14/-; Poorman Oranges, 7/-, 8/-. Lemons: Australian, 16/-; N.Z., 9/-, 12/6.

"Harvey" Mole Drainer.—The attention of fruitgrowers is directed to the advertisement of Mr. D. Harvey, of Box Hill, Victoria, in which he gives particulars of an inexpensive drainage system which saves land from becoming waterlogged. This is the "Harvey" Mole Drainer, and is specially manufactured for making effective drainage channels.

The "Harvey" mole drainer saves trench digging, agricultural pipes, and conserves moisture. This is stated to be the ideal drainage for golf courses, racecourses, showgrounds, football reserves, recreation parks, etc. The surface is left level and unbroken, the grass is in no way injured, yet a perfect underground drainage system is achieved.

MELBOURNE WHOLESALE MARKET.

A plentiful supply of Tomatoes from Geraldton, W.A., met with fair sales during July at prices that range from 4/- to 6/- half-case. South Australian celery found a steady sale at 8/- case, and French Beans from Queensland were in good demand at 5d. to 7d. per lb. Bananas showed a rise of 2/- on the previous month, and sales were effected at 19/- case.

Queensland Pines were quoted at 9/- case during the last week in July, sales being very slow. Washington Navels brought as low as 4/- case, while the top price for special lines reached 10/- case. Queensland Strawberries were expected to reach Melbourne market during the last week of July, but at the time of going to press they had not made any appearance.

MELBOURNE FRUITERER FINED.

Premises Unclean.

Tom de Fina, fruiterer, Sydney-road, Brunswick, Melbourne, was, on July 25, fined £1, with £2/2- costs, for having his premises in an offensive condition. Mr. Davidson, Inspector, said he found in accused's stable on June 9, over 20 cases of decayed fruit and vegetables, with liquid oozing. Defendant said that his assistant, who usually kept the premises clean, had been away ill.

Messrs. John White (South Yarra) and Albert Dennis (St. Kilda), were each fined £1 for carrying vegetables and flowers in their cars to their shops from Victoria Market on June 14, when such cars were not registered as commercial vehicles.

Sydney Fruit Trade.—The firm of F. H. G. Rogers has been established on the Sydney market for the past thirty-two years, and has built up a thorough organisation for the handling of large quantities of all varieties of fruits. The business has been recently transferred from the Fruit Exchange to the City Markets. Mr. Rogers has made a life-study in all the intricacies of the fruit trade, and has an extensive knowledge in the handling, care and disposal of fruit.

GROWERS!

Consign your Fruit to:—

JAMES SLATER

21 City Markets, Sydney

Postal Address: Box 36, Haymarket P.O., Sydney.
Established 1882.

Bank Reference: Commercial Banking Co., of
Sydney, Haymarket.

Specialist in Strawberries and all other Choice
Fruits.

All Victorian Fruits and Nuts handled to best
advantage on the Sydney Market.

Shipping No. 19 88 Vic. & Tas.

See Paragraph, Page 209.

Stencils, Advice Notes, etc., on Application.

Sunnyside Orchards Limited

Mr. Chas. Smith, Snr., the founder of the firm of Sunnyside Orchards Limited, commenced business as a fruitgrower some 24 years ago at Batlow. This town has since developed into one of the richest fruit-producing districts of the State. Mr. Smith commenced by planting twelve acres of Apples, but later on a partnership with his two sons was formed and plans were laid for the extension of the orchard area, and as a result somewhere about fifty acres of trees were planted of the best commercial varieties.

During 1923 two other orchard properties as well as the partnership holdings were merged, and a company (Sunnyside Orchards Limited) floated, with a capital of £9,000. The orchard was almost immediately extended

to nearly one hundred acres, and a wholesale distributing centre established in the Hay-street end of the City Fruit Markets, under the personal supervision of the company's directors.

For the first season this Sydney branch confined their efforts to consolidating their position and clearing their own products, but it was soon found that this branch required greater supplies to cater for the popular demand and the company then registered under the Farm Produce Act as farm produce agents.

At the Hay-street branch of the company's business, a speciality is made of selling the best classes of fruit only, and the firm is strongly entrenched by the application of the best and most up-to-date business methods.

The firm's experience in the markets has led them to the conclusion that the relationship between fruitgrowers and their agent or agents who have the care of their consignments should be one of greater mutual confidence.

From the Hay-street branch of the company's business fruit is distributed on account of numerous growers right through the State, and this phrase of the firm's enterprise is strongly supported by the largest Apple and Pear packing house in the State.

The directors are looking forward to still greater progress in the future.

Messrs. Victor Leggo and Farmers Ltd., of 222 Queen-street, Melbourne, are advertising the following sprays in this issue: "Vallo" Copper Sulphate (Bluestone), "Vallo" Lime Sulphur Wash, "Vallo" Nicotine Sulphate and "Vallo" Ovicidal Wash. It is stated that a considerable saving is affected by using "Vallo" Ovicidal Wash because it obviates the necessity of spring spraying for aphids.

"YARRA"

ORCHARD SPRAYS

— Effective and Standard for all uses —

Prices Right

J. PARSONS & CO.

155 Yarra Street - Abbotsford - Vic.

New South Wales Bud Selection Society's Buds . .

In 1931 we purchased from the Bud Selection Society eight thousand buds of Valencia Late Orange and Washington Navel Orange, Emperor Mandarin, Eureka Lemon, Marsh Grape Fruit.

Trees from these buds are now ready to plant.

They are strong, well-rooted trees—will carry anywhere.

If you have the space, put a line of these alongside those you already have and watch results—it is worth while.

Catalogue Post Free.

Thos. Adamson

Rosea Nursery

Phone Ryde 70

ERMINGTON

N.S.W.

LION BRAND.



All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for prices and particulars to:

ORCHARD SPRAYS PTY. LTD., 549-51 Church Street, Richmond, Victoria, or—
CAMERON, SUTHERLAND & SEWARD PTY. LTD., Riverside Avenue, Sth. Melb., Vic.

Orchard Sprays

We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
ARSENATE OF LEAD (POWDER)
LIME SULPHUR
WHITE OIL EMULSION
PREPARED RED OIL
BORDEAUX MIXTURE
BORDEAUX COMPOUND
SPREADERS (SPECIAL)
CASEINATE
SPREADER (ORDINARY)
CALCIUM CASEINATE, ETC., ETC.

CITRUS DECIDUOUS FRUIT TREES

We are Now Booking for 1932.

OUR TREES ARE TRULY
"PEDIGREE"

LIMITED QUANTITIES OF TREES TO OFFER
RAISED FROM CITRUS BUD SELECTION
COMMITTEE'S WOOD.

Get Our Prices Before Buying Elsewhere

Catalogues
Gratis.

Correspondence
Invited.

QUALITY VERY PRIME FOR 1932

F. FERGUSON & SON,

Australian Nurseries,

Hurstville - - New South Wales

Also at
Camden.

Established
1848.



No. 9 Spraying Machine

The Most Extensive
Manufacturers in the
British Empire of

RUBBER STAMPS

Stencils, Marking Devices,
Inks & Acme Stamp Pads

We make a Big Range of Special
Fruit Case Marking Sets

We also Manufacture and Supply
Spraying Machines
for All Purposes

Let us know your requirements, and we will
quote you. Ask for Spraying Equipment Price List

Excelsior Supply Co. Ltd.

160 George St. West 278 Post Office Place
SYDNEY, N.S.W. MELBOURNE, VIC.
86 Manners St., WELLINGTON, N.Z.

NEW POWER SPRAY.

"Marino" Outfit Attracts Attention.

Keen interest was displayed at field days at Harcourt and Pakenham recently in the demonstration of the "Marino" power spray, a new orchard plant which impressed by its simplicity and efficiency.

The new plant has been designed to meet the demand for a power spray which is light and easily transported and yet highly efficient. The spray which is assembled in Australia, and of which 50 per cent. is manufactured in Australia, weighs only 120 lb. It will deliver 80 gallons an hour through two hoses and nozzles at a pressure of 200 pounds a square inch. One nozzle may be used at a pressure of 250 lb. The plant is 40 in. in length, 8½ in. in width, and less than 15 in. in height. One man can handle it, and it can be hauled through the orchard on a sledge or wheeled transport.

The pump is of gunmetal throughout, and has a pressure adjusting valve built into it. There is a by-pass from the pump to the mixture which operates as an agitator.

The power unit is a petrol engine with a small fuel consumption. It has a kick start and no throttle or spark control, the speed being regulated in the magneto, which is housed in the flywheel. A feature of the motor is its utility, as it can be used for driving a centrifugal pump, a generator for a house electric system, and even a small chaffcutter. The Victorian agents for this efficient and moderately priced plant are Henry Berry & Co. Pty. Ltd., Collins-street, Melbourne.

Mr. F. Chilton is one of the well-known figures in the Sydney fruit trade, he having had over fifty years' continual experience in the industry.

Mr. Chilton started as a lad assisting in the clearing of virgin tracts of country for the planting of orchards, doing the various classes of work associated with cultivation—spraying, pruning, etc. Then, after several years' experience in marketing personally-grown fruit at the old George-street Markets, he opened up business as a commission agent in the Belmore Markets in 1894. He has been actively engaged in the business of selling growers' fruit and exportation ever since.

The distributing section of the business is carried out in premises apart from the market by a separate staff. The commission section is carried on at No. 10 Municipal Markets, under the provision of the Farm Produce Agents Act. Mr. Chilton has a wide connection with growers in Tasmania, Victoria, N.S.W., and Queensland. For many years he was delegate to interstate conference. As a judge at the Fruit Shows in the Australian States, Mr. Chilton is appreciated.

ORCHARD SPRAYS.

The "Yarra" Brand Orchard Sprays are manufactured at 155 Yarra-street, Abbotsford, Vic., by J. Parsons & Co.

Their range of sprays include arsenate of lead, lime sulphur, copper sprays and spreaders, oil emulsions, etc.

This firm is manufacturing ammonia polysulphide for the control of brown and Peach rot. Many growers who have used this spray report excellent results, and at the present time Mr. Fish, of the Plant Research Laboratory is conducting experiments. Mr. Parson claims he is the first in Australia to manufacture ammonia polysulphide.

"Yarra" sprays have proved to be effective and economical in operation and growers should read their advertisement appearing elsewhere in this issue.

Poultry Notes.

GIVE THEM MILK.

Those who attempt to rear chicks without milk are asking for trouble, as it has been conclusively proved that milk feeding in some form, apart from its food value, is a direct precaution against losses from coccidiosis. Most poultrymen are able to obtain supplies of skim milk, if not from their own cows, then from a neighbor. If unable to use skim milk, then buttermilk, either wet or dry, should be fed. Some poultrymen complain that they cannot afford to pay the price that is asked for dried buttermilk—about 3½d. per pound—yet if they will stop to think, they will realise that they are getting a very cheap protein food.

If you are not feeding milk, you should at once do so and watch the results. If you suspect your chicks to be infected with coccidiosis, you can help them by feeding a mash consisting of 40 per cent. dried buttermilk for a period of two weeks, gradually reducing the amount of buttermilk by 10 per cent. Whole milk has no advantage over any of the milk by-products.

When your oats are not worth thrashing, and you cannot sell your rye,

And there's not a gleam of hope within your ken,
Get a hatch or two of chickens—send your worries to the
dickens,

There is promise in the cackle of the hen!

14 Eggs a Day From 18 Hens

Due to Regular Use of
Karswood Poultry Spice

Dear Sir:

I am a firm believer in Karswood Spice for chicks as well as grown fowls. My poultry are always healthy, and I have eggs when my neighbors (who are non-Karswood users) have none. At present I only have 18 hens and am getting 14 eggs a day.

Wishing your Spice every success.

(Sgd.) Mrs. L. A. Dind.
"Coolga," Burren Junction,
Sept. 14th, 1931.

give hens the balanced nourishment necessary for prolific laying.

Amongst its ingredients are dried and ground insects, and organic phosphorous... tonic elements that do not force in any way. They keep hens in perfect health: generous egg-yields follow as a natural consequence.

There is nothing mysterious about Karswood Poultry Spice, although—admittedly—as an egg producer, it is scientifically prepared to

Mix a dash of Karswood into the mash every evening. You'll quickly find that it is the simplest way to profitable egg returns. Obtainable from any Grocer, Wholesaler, Produce Merchant or Store.

SUPPLIES
Karswood is obtainable in packets of ½-lb. and 1-lb., and tins of 7-lbs., 14-lbs. and 28-lbs.

KARSWOOD

POULTRY SPICE

Increases egg-production without forcing



City Fruit Markets Sydney N.S.W.

F. Chilton, Established 1894.
Fruit Commission Agent,
Licensed Under Farm Produce Agents' Act.
Highest Market Prices, Prompt Returns, Reliable
Advice.
Registered Address for Telegrams and Cables—
"Chiltons."
City Fruit Markets, Sydney.

FRUITGROWERS!

For Satisfactory Results, Send Your Fruit to

F. H. G. RogersFruit Selling Expert,
Municipal Markets, Sydney.

Shipping No. 83.

Established 1900.

BANANA GROWERS—For Top Market
Prices, Consign Your Fruit to**Hop Lee & Co. Ltd.**Licensed Farm Produce Agents,
3-9 Municipal Buildings,
Ultimo Road, Sydney, N.S.W.
Opposite City Fruit Markets.
Forwarding Number 25.**SUNNYSIDE ORCHARDS LTD.**Fruitgrowers and General Distributors
47 City Markets, Hay Street, Sydney
Consignments to Our Care
Expertly Attended to.References.—Bank of N.S.W., Hay-
market, Sydney; Batlow, N.S.W.
Phone M 3228.**J. Moss & Sons**Fruit Merchants,
Municipal Markets, Sydney and
Melbourne.Importers and Exporters.
Expert Salesmen and Distributors.
Telephone City 3643.
Once a Client, Always One.**FRUITGROWERS**

FOR TOP MARKET PRICES & PROMPT RETURNS.

CONSIGN YOUR FRUIT TO

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SYDNEY.

PHONES: Business M3242; Private UJ3664.

FRUITGROWERS, PLEASE NOTE!**J. W. Morriss,**Licensed Fruit and
Produce Agent,
Municipal Markets, Sydney. Established 20 Years.
Modern Salesmanship, Reliable and Free Advice, and
Prompt Returns.References—Commonwealth Bank of Aust.
Once a Trial—Continuous Satisfaction.**FRUITGROWERS—****Ward & Felton,**Established 1904.
Licensed Farm
Produce Agents,
City Markets, Sydney, Offer You
Expert Salesmanship, Dependable Advice, Prompt
Returns, and a Cheque that is not a "Boomerang."
One Consignment—Long Attachment.
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Specialist,
Municipal Markets, Sydney.We dispose of large consignments of Growers' Pro-
ducts. If you are not already consigning to me, I
solicit a share of your patronage.Quick Results and Prompt Payments are Our Business
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Municipal Fruit Markets, Hay Street, Sydney.

Canadian Cases Made up and in Shooks.
Gin Bushels, 1/- each.All Other Kinds Fruit Cases in Stock.
Telephone MA 4826.

Sydney is the Principal
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Telephone MA 3846.

W. Musgrove & Son,Established 1900.
Licensed Farm
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Reference—Bank New South Wales, Haymarket.
Our Motto—Quick Sales and Prompt Settlements.
You will be Satisfied by Giving us a Trial.

Forwarding Numbers:

Tasmania, Victoria, S. Australia, No. 53.
Queensland, Northern Rivers, No. 18.**Fruiterers' Supply Co.,**Licensed
Farm Produce
City Municipal Fruit Markets, Sydney.Reference—E.S. & A. Bank Ltd., Haymarket
Fruit and Vegetable Commission Agents,
Also Contractors to Suburban and Country Chain Stores.
We Solicit portion of your Consignments.
Prompt Returns Immediately on Completion of Sales.
Well established business in an advantageous position
in the Market.

The firm of Messrs. W. Musgrove & Son, whose display advertisement appears under the block heading: City Municipal Markets, in this Journal, was established during the pioneering stages of Sydney fruit history in 1900 in the old Belmore Market, where they gained the confidence of the growers.

The Musgrove firm were among the first to occupy premises in the New City Markets, and they have been located in No. 8 store ever since. Supplies come from growers from nearly all the States of the Commonwealth. The firm's trade practising motto is based on "Sell Quickly and Pay Promptly" methods. All growers visiting Sydney are cordially invited to the stand of Messrs. W. Musgrove & Son, who are licensed under the Farm Produce Act of N.S.W., and guaranteed by a Fidelity Bond.

Buzacott Pumps.—In the advertisement in this issue of Messrs. Buzacott & Co. Ltd., are illustrations showing the Buzacott spray pump, the "Buzacott" 2 VH engine and the "Buzacott" spray cart. Agents for Victoria are Messrs. Cameron, Sutherland and Seward Pty. Ltd., South Melbourne, and for Tasmania, the Tasmanian Orchardist Producers' Co-op. Co. Ltd., Hobart.

In their advertisement in this issue, the Picnic Point Nurseries (C. J. Goodman), of Bairnsdale, Victoria, publish a testimonial from a leading fruitgrower. Exceptionally fine stocks are available in Apricots, Pears, Apples, Plums, Peaches, Quinces, Nectarines, etc.

Rockhampton

The starting point for the Great Queensland Central Railway has a population of 30,000, and offers a good market for your fruit.

ORCHARD FRUIT SUPPLIES

offer a prompt and reliable selling service. Best Prices. Prompt advices and returns.

Reference:—Australian Bank of Commerce.
Phone: 1584.
P.O. Box, 223. Brand: ORCHARD RTON.

-LEMONS-

We are the largest Buyers
in Australasia

C. M. BROOKE & SONS
73 Whiteman St., South Melbourne, Vic.

PATENTS GEORGE A. U'REN

PATENT ATTORNEY
HEATHY HOUSE, 499 LITTLE COLLINS ST.
MELBOURNE.

"Fruit World Annual"

Comprehensive review of
Australian and New Zealand
fruit industry.

"The Fruit World," Box 1944
G.P.O., Melbourne.

"RED ROSE" Nicotine Sulphate

40 Per Cent.

Testing
50 per cent. in the form of Nicotine
Sulphate,

AND GUARANTEED

40 per cent. PURE NICOTINE.

Indispensable to the Orchardist
Invaluable to the Poultryman.

Full directions given on each tin.

BUY BRITISH!

and INSIST upon

"RED ROSE"

GET THAT 100 PER CENT. KILL.

David T. Boyd & Co. Ltd.

59 Mark Lane, London, E.C.3

Cable Address: "DIAPHONICS," London.

Agents for Victoria: D. & W. CHANDLER LTD.,

120 Johnston Street, Fitzroy, N.6, Victoria.

(Enquiries invited for Territorial Sole
Agents.)

Fruitgrowers!

If you want the Best Trees from Guaranteed
Pedigree Stocks and all Varieties True to Name,
Consult

G. McKee's Nurseries

Ermington, N.S.W.

(Founder of Nursery Industry in Australia.)

Established 80 years.

Specialists in

Citrus, Summer Fruits and Roses

Trees Sent Anywhere, Any Quantity.

Packing a Speciality.

Note.—We give refills free of charge to all
permanent customers.

Advice is Gratis.

Book Now, or Write for Catalogue.

SWALLOW & ARIELL PTY. LTD.

Loss for Year of £22,400.

Swallow & Ariell, Melbourne, disclose a loss of £22,400 for the year to April 28, against a loss of £5,983 for the preceding 12 months and a profit of £22,806 for 1929-30.

No dividends were paid during the year, and the credit at profit and loss account has now been reduced to £20,404.

The directors state that, in spite of rigid economies, the loss occurred. Compared with the preceding year, last year's accounts had to bear additional charges, amounting to £25,025 for provisions for bad debts and depreciation, and a revaluation of stock. The trading results of the past year show a definite improvement on the previous year, but, in the opinion of directors, these charges were necessary to meet the conditions which obtain at present throughout Australia.

GROWERS !!!

If you want Long Experienced Service, Consign your lot to a

Real Australian Pioneer in Agriculture

Descendants four Living Generations to-day.

A. E. SCHUSTER

Store 16, Quay Street, City Markets, Sydney, N.S.W., Australia.

Sound Judgment of Prices,

Prompt Returns,

and Reliable Advice.

Bank, Commercial Banking Co. of Sydney (Haymarket).

Stencils on Application.

SHIPPING No. 270,

'Phone MA 4296.

P.O. BOX 253, HAYMARKET, SYDNEY, N.S.W.

F. CHILTON

ESTABLISHED 1894

FRUIT COMMISSION AGENT

Licensed under Farm Produce Agents Act

Highest Market Prices

Prompt Returns

Reliable Advice

Registered Address for Telegrams and Cables,
"CHILTONS"

References:— Bank of N.S.W., Haymarket, Sydney
and Growers throughout Australia

CITY FRUIT MARKETS, SYDNEY

GRUBBING



**WITH A
"DIGGER" WINCH**

A Man can uproot more Trees and Stumps in
a Day than he would dig out in Ten Days

QUICK MANUFACTURING CO., 75 Penders Street, Thornbury, Victoria

Thousands
in Use

It earns its
Famous
LOW PRICE
in a Few Days

Write for
Catalogue

READ THE

**"Australasian
Poultry World"**

Something of Interest for
every Poultry Breeder.

All Newsagents 6d. per Copy

The Australasian

POULTRY WORLD

Secure Your Copy Now — Price 6d. all News Agents

LAW, SOMNERS' CATALOGUE.

A well illustrated and comprehensive catalogue is just to hand from Law, Somner Pty. Ltd., seedsmen and nurserymen, of 21 Elizabeth-street, Melbourne. The scope of the catalogue will be appreciated from the words on the front cover: "Everything for the farm, garden and orchard."

In the flower and vegetable sections many new and improved varieties are included. There is a good range of Grasses, Clovers, agricultural and pasture seeds. The

fruit tree section embraces pip and stone fruits, also citrus. Many of the plants, bulbs, etc., are illustrated. The colored pictures being particularly attractive: among the latter may be mentioned: Narcissi, Liliums, Herbaceous perennials, Iceland Poppies, Ranunculi, flowering shrubs, Roses, Carnations, Calendula; there is also a fine colored plate of vegetables.

In addition to the foregoing, the useful cultural hints, including lists and normal growth of shrubs, make this catalogue a useful work of reference. Copies are obtainable gratis on early application.

Black Leaf 40

Death to Aphis (Plant Lice) and Other Insects

Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

In the Orchard and Garden

"Black Leaf 40" is recommended for killing woolly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

Kills By Contact and By Fumes

"Black Leaf 40" has a dual action. It kills plant insects both by fumes and by contact. This double-killing action makes "Black Leaf 40" unusually effective in insect control.

Paint Roosts . . . Kill Poultry Lice

Poultrymen find that if they paint the roosts lightly with "Black Leaf 40" the lice on the birds are killed. The heat from the birds' bodies releases fumes which destroy lice, as the flock roosts on perches.

Genuine "Black Leaf 40"

"Black Leaf 40" is registered by us in Australia and New Zealand as a Trade-Mark and Brand. Users are familiar with the red labelled packages and the black leaf design prominently displayed thereon. Beware of imitations. Insist upon genuine "Black Leaf 40," made only by Tobacco By-Products & Chemical Corporation.

Distributed in Australia by Neptune Oil Company,
Melbourne, and by Producers' Cooperative
Distributing Society, Sidney

MANUFACTURED BY
Tobacco By-Products & Chemical Corp.
(Incorporated)
LOUISVILLE, KENTUCKY, U.S.A.



South Australian Pruning Competition.—Under the auspices of the Agricultural Bureau, the annual pruning competitions were commenced at Mypolonga on June 2, and were continued as follows:—June 8 (Renmark), June 9 (Berri), June 10 (Moorook), June 13 (Cadell), June 14 (Waikerie), terminating with the championship at Moorook on June 15. The championship was held at the

block of Mr. R. Elliott, trophies being presented at conclusion of the pruning.

Mrs. Bloggs: My husband is a man who calls a spade a spade.

Mrs. Blobbs: So was mine until he bought a house with a garden.

CARRIAGE OF FRUIT BY SEA

FRUIT SHIPMENTS FOR SYDNEY AND QUEENSLAND PORTS SPECIALLY CATERED FOR.

Regular weekly service of **Fast, Modern, Passenger Steamers**, fitted with ventilated 'tween decks and Refrigerator Chambers.

By special arrangement Fruit, etc., for Sydney, leaving Melbourne Noon Saturdays, is delivered on Sydney Wharf 6 a.m. Mondays, ready for early morning market.

Fruit for Brisbane, leaving Melbourne Noon Saturdays, delivered Brisbane Wharf 8 a.m. Thursdays. **SPECIAL REDUCED RATES OF FREIGHT.**

For further particulars and sailing dates, apply to:—

AUSTRALIAN STEAMSHIPS PTY. LTD.,
Howard Smith Ltd., Managing Agents, 35
Market Street, Melbourne, C.I. Tel. Cent. 8314.

**AUSTRALASIAN UNITED STEAM
NAVIGATION CO. LTD.,**
MacDonald, Hamilton and Co., Managing Agents,
467 Collins Street, Melbourne, C.I. Tel. Cent.
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ADELAIDE STEAMSHIP CO. LTD.,
505 Collins Street, Melbourne, C.I. Tel. Cent.
475.

HUDDART PARKER LTD.,
466 Collins Street, Melbourne, C.I. Tel. Cent.
8960.

McILWRAITH McEACHARN LTD.,
94 William Street, Melbourne, C.I. Tel. Cent.
9440.

MELBOURNE STEAMSHIP CO. LTD.,
31 King Street, Melbourne, C.I. Tel. Cent. 8693.

TRAVEL INTERSTATE BY SEA

SUPPORT CO-OPERATION

By Consigning your
FRUIT to the

Producers' Distributing Society Ltd.

(Late Coastal Farmers' Co-operative
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Agents for

"BLACK LEAF 40"
and all Orchard Requirements

Melbourne Sydney
Newcastle Hobart
Launceston Devonport

Cooksley & Co.

(W. P. COOKSLEY)

Reliable Fruit Agents

Over 30 Years Experience

TRY THEM!

Telegraphic Address:
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Fruit Exchange, Brisbane
QUEENSLAND

Shipping No. 29

Reference: Commercial Banking
Co. of Sydney Ltd.

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ALL NEWSAGENTS

6d. Per Copy 6/- Per Annum

Ship Your Oranges, Lemons, Grapes to New Zealand



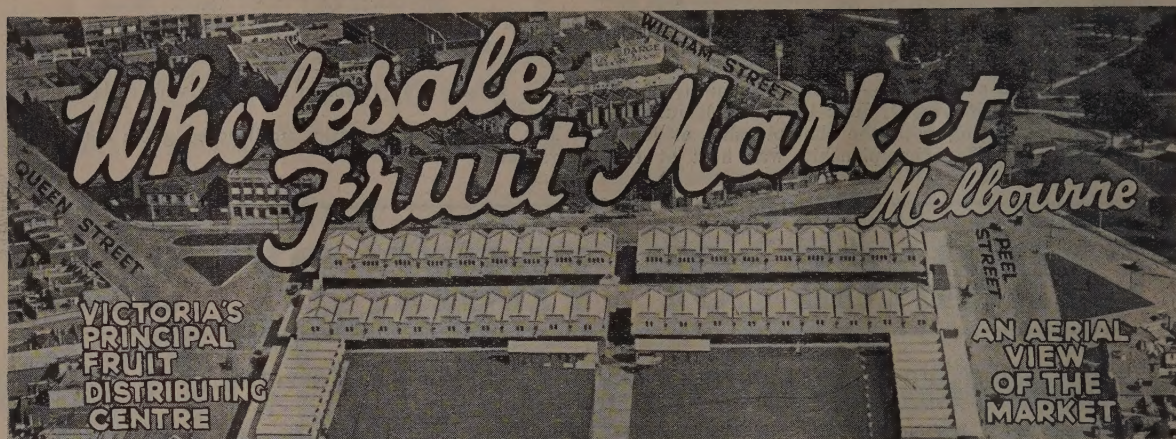
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this market will have
careful attention and
realize highest prices
if sent to

The Co-operative Fruitgrowers of Otago Limited, Dunedin

Personal supervision of
every consignment.

Cheques posted promptly.

Drop us a Line or Cable
"Peachbloom," Dunedin.



Cable Address: DAVIS, MELBOURNE.

Code: "ABC," 4th and 5th Editions.

Box, G.P.O. 148B.

J. DAVIS PTY. LTD., Fruit Merchants

8 Wholesale Fruit Market

Consignments solicited.

One Trial Invited.

Best Prices obtained.

Prompt Advice and Payment.

Telephone F 3232

Bankers: The National Bank of Australasia, 271 Collins Street, Melbourne.

Silbert, Sharp & Davies
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Fruit Merchants and Commission Agents.

17 Wholesale Fruit Market

'Phone F 2237.

G. Lister Pty. Ltd.

Wholesale Fruit Salesmen

12 Wholesale Fruit Market

Bankers: Commercial Banking Co. of Sydney
For Reference: ASK ANYONE

A. Millis & Sons

34 Wholesale Fruit Market

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Specialty—Prompt Returns. Cheque every
'Phone F 1862 Wednesday.

J. W. Ross

13 Wholesale Fruit Market

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Prompt Returns and Sale Notes Daily.
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Telephone F 5550.

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20 Wholesale Fruit Market, Melb.
CONSIGNMENTS OF FRUIT AND
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Telephone: F1023; Private JW2523.
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Fruit and Produce Merchant and General Commission Agent

Consignments Solicited

Highest Market Prices

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Wholesale Fruit Merchants and Commission
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9 Wholesale Fruit Market

Bankers: National Bank
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SOLICITED

PHONE: F 3930

Telegrams "CAVECOFRUT"

N. N. McLEAN PTY. LTD.

60 Wholesale Fruit Market

Growers Agents and Exporters

Manufacturers of "PLANE" brand
Chemical Dusts.

Box 417
G.P.O.

J. H. Young & Co. Pty. Ltd.

(R. Gordon, Managing Director)

GROWERS AGENTS

32 Wholesale Fruit Market
MELBOURNE

Bankers:
E. S. and A. Bank
William Street, Melbourne.

HIGHEST PRICES
and
PROMPT RETURNS

SHIPPING NO. 48

"WE STRIVE TO PLEASE"